

Report  
of the  
Medical Officer of Health  
City of Glasgow



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THE CORPORATION OF THE CITY OF GLASGOW





STONELEIGH HOUSE.





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## PREFACE

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The Annual Report on the Health of the City for 1951 contains some encouraging features. Steady progress has been maintained in most fields. It would be cumbersome in a preface to summarise each aspect, so comment has been restricted to those subjects in which notable progress has been made or in which changes in legislation or administration are necessary.

The cost of the Health Services of the country is a heavy burden on the community, and it is imperative that full value should be obtained for the enormous expenditure incurred. There must be no overlapping of services, retention of redundant services or over elaboration. Until every person who requires hospital treatment can obtain it promptly and until long waiting lists are obliterated for the chronic sick, the aged, the mentally defective and the tuberculous the National Health Service cannot be deemed a success.

### VITAL STATISTICS.

The full report of the Glasgow Census has now been published and is being studied in detail, not only for the light it may cast on problems of epidemiology and vital statistics generally but also to assess more accurately those population trends which have important implications for the future policy of a health and welfare service. Only a brief reference can be made here to some of the more outstanding features of the report.

The total population, 1,089,767, has changed little, being only 3,570 or 0·3 per cent. less than in 1931. This population, however, is very different in age constitution and in its distribution throughout the city, and there has been a large migration from the area north of the river to the southern and western outskirts. The wards north of the river have 36,570 fewer people than in 1931 and the southern area, containing the wards of Craigton, Pollokshields, Camphill and Pollokshaws, has gained 73,035 persons in the same period. The population too is older by three years with an average age of 33·3 years. The percentage of population under 15 years is 24·8 compared with 27·3 in 1931 and at ages 65 and upwards 8·6 compared with 5·6.

The sex ratio has increased and there are now 110 females to every 100 males. A larger proportion of the population is married, 43·6 per cent. compared with 36·7 per cent. in 1931.

Housing conditions show some slight improvement. The average number of persons per house is 3·58 compared with 4·11 persons in 1931. The percentage of the population living more than 2 persons per room is 24·6. Comparable figures are not available for 1931, but it has been estimated to have been about 42·3 per cent. The number of occupied private houses has increased by 37,529 (14·6 per cent.), and the number of 1 and 2 room houses has been reduced by 6·7 per cent. (from 149,310 to 139,271).

The most densely populated wards are those of Dalmarnock, Mile-end, Cowcaddens, Hutchesontown and Gorbals, in each of which over 40 per cent. of the population are living more than two to a room. There is a widespread lack of the five household amenities listed in the Census Schedule, i.e., piped water supply, a kitchen sink, a water-closet, a fixed bath and a cooking stove or range. Less than half of the city households (43·9 per cent.) had the exclusive use of all five conveniences. Only 44·1 per cent. had exclusive use of a fixed bath, and 7,971 of the 306,825 households in the city had no cooking stove or range.

#### MATERNITY AND CHILD WELFARE.

Within the past two years there has been a tendency for certain writers, particularly politicians, to assume that the marked reduction in infant mortality now implies that the maternity and child welfare work has attained its ends and can now be maintained by a caretaker staff. The truth is that the present reduction is really due to the elimination of the most easily preventable deaths, and the service is now faced with the more difficult task of maintaining the present standards and improving them in many directions. That further improvement is possible is shown by the fact that Glasgow's figures are still nearly double those prevailing in Aberdeen, for example. Of course, our problem of gross overcrowding is unique and is unquestionably a major factor in the relatively high infant mortality rate in the city. Among the many causes of infant deaths in which considerable further reduction could be attained are prematurity, gastro-enteritis, burning accidents, and overlaying. Prematurity is still



responsible for more than half the neo-natal deaths, and although the number of deaths from this cause has been reduced the reduction has been achieved at relatively great expense by special provision for the care of the premature child both in hospital and at home. The prevention of prematurity is our aim, and this is closely allied to the ante-natal care of the mother. Infant mortality from this cause can be still further reduced by a standard of maternal care which ensures that the expectant mother receives optimum ante-natal supervision with proper attention to diet and general hygiene. Pre-natal dietary carelessness is still far too common, and education of the expectant mother to avail herself of the facilities provided and to follow the advice given is still vitally necessary.

Much as the problem of the aged deserves attention, it must be realised that the future of the country depends on the health and survival rate of the children born to the nation. The national birth rate is only half of what it was a century ago, and it is imperative that there should be the largest possible survival rate. The Health Department in no way minimises the contribution which the general practitioner can make in this direction, but feels that a closer liaison between the general practitioner and the maternity and child welfare department would benefit both the curative and preventive services. A busy general practitioner who cannot run his own ante-natal clinic should encourage his patients to attend those provided by the Corporation. There the mother will learn the essentials of pre-natal and infant dietary and the care and clothing of herself and her baby. The instruction is made more lucid by special demonstrations by health visitors. It is disappointing that little advantage is being taken throughout the city by general practitioners of the clinic and other facilities provided for the examination of the blood from expectant mothers. There is no excuse for the deaths (approximately twelve annually) which are due to failure to ascertain the Rhesus factor during the ante-natal period. Yet only half the mothers are tested for Rh. A further advantage of clinic attendance is that consultant advice is always available.

#### HOME HELP SCHEME.

Although this scheme was primarily evolved to meet short term requirements, especially for expectant and nursing mothers, an ever increasing proportion of the 1,000 women enrolled in the Service has



had to be allocated to the permanently disabled. Most of these are over sixty years of age and in receipt of National Assistance. This not only throws a crippling financial burden on the scheme but destroys its ability to deal with outbreaks of inter-current illness in the population, particularly respiratory infections.

The time is overdue for a proper geriatric scheme for the city. Since the National Health Service came into operation it has become progressively more difficult to obtain the admission of elderly chronic patients to hospital. Legislation has removed the power of the local authority to enforce admission except in certain specified cases following appeal to the Sheriff. With the ageing of the population hospital administrators must adapt their hospital accommodation to meet the requirements of the people they serve. Ultimately it will be necessary to set up geriatric units in most of the general hospitals, and it would seem appropriate that a start should be made now. There are empty wards in many of the Glasgow hospitals which could readily be adapted for this purpose.

#### INFECTIOUS DISEASES.

The problem as a whole remains satisfactory. Mortality in children under ten years was less than one-third of the 1931 figure. There must be no complacency with regard to this group of illnesses, as it is not uncommon for a disease after a latent period of some years to become prevalent again in a more virulent form. This has occurred with scarlet fever in the past, while at present poliomyelitis and dysentery have both acquired a higher incidence and are a threat to the child population.

Acute syphilis in both sexes has decreased remarkably during the year, and congenital syphilis was also less. There were fewer positive blood samples in women examined ante-natally. This indication of real progress in the elimination of this disease is most satisfactory.

#### TUBERCULOSIS.

It is often asked if tuberculosis is better off under the National Health Service Acts. There is no doubt that it has received on the national basis a larger allocation of money than under local government. It is probable, however, that much of the resulting advantage has been neutralised by divided administration.

It seems futile to persist in claiming that tuberculosis administration is improved by being split into two camps. No one has ever before maintained that schism causes anything but weakness. The disease itself operates as an entity ; why should the forces opposing it be divided? Yet this was the stated purpose of the National Health Service Acts.

These Acts placed Medical Officers of Health in a very weak position in respect of tuberculosis. The new legislation delegated to them the duties of prevention and after-care, but took from them the effective medical staff required to carry out these duties by transferring the Tuberculosis Officers along with their clinics to the Regional Hospital Boards. Some Medical Officers of Health, attempting to retain a unified service, agreed to re-delegate most of their duties to their former Tuberculosis Officers, now designated Tuberculosis or Chest Physicians. This precedent was highly disadvantageous to the preventive service. For example, a purely preventive function such as B.C.G. vaccination is carried out in some areas by the Tuberculosis Physicians and in others by the Medical Officer of Health's staff. The point has surely been reached when the initial error should be recognised and tuberculosis administration unified once again.

The lack of concerted effort is very apparent, and any lower mortality or notification figures are largely due to improvements in the clinical and therapeutic fields. B.C.G. is beginning to play a part, but the fundamental necessity for leadership still remains. Tuberculosis differs from most of the infectious diseases in being nearly always a family problem. It is a personal tragedy but a social disaster. The Medical Officer of Health is by nature of his duties closely associated with these problems. There is much to be said for unifying the Tuberculosis Scheme under him.

#### PORT HEALTH AUTHORITY.

The number of vessels from foreign parts which arrived within the jurisdiction of the Port during the year was 1,299 and all were reported free of convention diseases. There was a slight reduction in the number of cases of minor infections and other illness on these vessels.

The introduction of the Prevention of Damage by Pests (Application to Shipping) Order, 1951, which became operative on the first

day of October, extended the control of rodent infestation to all the smaller vessels within the dock area, creating additional duties for the Port staff.

The Department sustained a serious loss during the year through the unexpected death of the Senior Port Inspector, Mr. Charles Randall. Mr. Randall had been a member of the Public Health Staff since a boy, and had been attached to the Port Health Section from 1926, becoming Senior Inspector in 1940.

#### HOUSING.

The provision of new houses continues but still does not meet the increasing need. The number of homeless families remains at 40,000 in spite of the 20,000 new houses which have been provided since 1945. The recent report by the Chief City Architect and Planning Officer shows that the available sites within the city boundary are rapidly being used up and that it will soon be necessary to look outwith the city for sites for a considerable proportion of the city's population. As an index of this shrinkage in available sites, the Corporation have followed a policy of building to a high density, providing 98 to 100 per cent. of the new dwellings in tenements and 75 per cent. of these as three apartments.

The older property continues to deteriorate, and action under the Housing Acts is restricted only by the lack of alternative accommodation. Since 1945, 3,500 houses have ceased to be occupied by reason either of danger or of unfitness.

The number of houses available for the special group of tuberculosis families still remains quite inadequate compared with the number requiring improved accommodation, and already 1,000 families are on the special priority list awaiting rehousing.

Included in the report is an interesting review by one of the senior Health Visitors on her work as a housing nurse over the past 25 years and a note of the considerable improvement which has been made since the 1920's.

#### BACTERIOLOGICAL LABORATORY.

One of the primary duties of the Medical Officer of Health is that of preventing disease. It is essential for him to have available ample laboratory facilities where social bacteriology can be carried out and

group investigation made. For over half a century this has been provided in Glasgow by the Public Health Laboratory, which this year has carried out 98,986 examinations. The scope of the work covers a wide range from tests for venereal disease and dysentery to routine examination of water, milk and food substances. Original investigations into the bacteriology of dental caries, canine paratyphoid infection and diphtheria have also been carried out.

#### FOOD INSPECTION.

The anticipated declaration that Glasgow would be included in a Specified Area in terms of the Milk (Special Designations) Act, 1949, has had to be postponed until 1952.

In furtherance of the campaign for cleaner food, application has been made to the Sheriff for approval and confirmation of amended bye-laws for regulating street trading in the city. Under the terms of the amended bye-laws vehicles as well as stores will require approval before permission is given.

#### AIR PURIFICATION.

Under this Section has been included a paper read to the Scottish Branch of the Smoke Abatement Society at Perth. The Chief Smoke Inspector has supervised the carrying out of further improvements in boiler plant and has again conducted his classes in boilerhouse practice. This educational work is essential if the standard of stoking throughout the city is to be improved.

#### GENERAL SANITATION.

In addition to the routine work carried out by the Divisional Sanitary Inspectors the licensing of premises under the Rag Flock and other Filling Materials Act, 1951, was begun. Further propaganda work was carried out with regard to the improvement of the standard of hygiene in catering establishments, a film unit being used to supplement lectures. It is satisfactory to record the demolition of many unsuitable properties in Lyon Street, and the fact that bug infestation in rehousing schemes is now less than a twentieth of that found as recently as in 1924.



## WELFARE SERVICES.

During the year one additional Home for the aged was opened, adaptations on other two were almost completed and several further houses were purchased for adaptation.

In addition to the homeless and squatter families who have had to be accommodated, temporary accommodation was required because of the collapse of houses. At the close of the year, on 30th December, 1951, as the result of storm damage, the services of the welfare staff were required at ten incidents. At some of them the needs were restricted to feeding or removal and storage of furniture but 28 persons required accommodation in Foresthall.

It is interesting to note that the numbers of persons without a settled way of living requiring to be accommodated in Glasgow is low for a city of its size. The average number per night accommodated in Foresthall on behalf of the National Assistance Board was eight. Only those towns accommodating more than ten per night are listed in the official National Assistance Board Returns of what were formerly known as "vagrants."

The applications for accommodation during the year increased by 12 per cent. over the previous year and numbered 1,001.

The care and after-care of physically and mentally handicapped persons developed further during the year and a senior occupation and training centre for boys and young men was opened in the Department's property in South Portland Street, and arrangements were put in hand for the adaptation of one for girls.

With the development and co-ordination of the various welfare services of the Department, the number of welfare visits paid and investigations carried out increased very substantially.

## MENTAL SERVICES.

I should like in this preface to mention only two matters in connection with these services. The first is that the number of old people certified for mental hospital as a result of senility has continued to increase substantially. The second is that it is wellnigh impossible to get into any institution low-grade mentally defective children whose retention in their own homes creates family problems of the gravest order. Glasgow is not alone in experiencing this difficulty,

and the Minister of Health in a Parliamentary debate on the subject has stated that he has asked the Regional Hospital Boards to allocate part of their budget for the provision of beds for such patients. I regret, however, that through lack of provision by the Hospital Board in Glasgow the position gets worse each year and the Mental Welfare Officers, instead of being able to spend their time in positive welfare work, have to devote much time explaining to distraught parents that despite the urgency of their need no definite prospect of admission to a certified institution can be given.

It is a pleasure to thank the Convener and members of the Health and Welfare Committee for their courtesy and assistance throughout the year. I am also grateful to the Department's Librarian for collection and collation of the material of this Report. All members of my staff have given loyal and able service during the year, and I take this opportunity of expressing my appreciation.

A handwritten signature in dark ink, reading "Stuart Haidland". The script is fluid and cursive, with the first name "Stuart" and last name "Haidland" clearly legible.





# CONTENTS

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## PREFACE.

SECTION	PART I.	PAGE
I. POPULATION—		
Glasgow Census Report, 1951	... ..	23
Institutional Population	... ..	31
Acreage, Density, Inhabited Houses, etc.	... ..	32
Temperature and Rainfall (Meteorological Observations)		35
II. VITAL STATISTICS—		
Summary	... ..	37
Births, Marriages, Deaths	... ..	37
Causes of Death	... ..	39
Age and Sex Distribution	... ..	45
Deaths from Cancer	... ..	46
Transfer Deaths, etc.	... ..	49
III. MATERNITY AND CHILD WELFARE—		
Maternity and Child Welfare Services	... ..	51
Infant and Neo-natal Mortality	... ..	53
Still Birth Investigation	... ..	58
Child Welfare Scheme	... ..	60
Ante-Natal Consultations	... ..	63
Post-Natal Clinics	... ..	64
Maternal Mortality	... ..	64
Special Investigations	... ..	65
Dental Treatment for Expectant Mothers	... ..	65
Artificial Light Treatment	... ..	66
Health Visitors' Training Course	... ..	66
Health Visiting Service	... ..	66
Infant Visitation	... ..	67
Home Nursing Service	... ..	68
Nursing Homes Acts	... ..	69
Nurses' Agencies	... ..	70
Day and Residential Nurseries	... ..	70
Residential Homes	... ..	71
Training of Nursery Students	... ..	72
Nurseries and Child Minders	... ..	72
Home Help Scheme	... ..	73

SECTION	PAGE
III. MATERNITY AND CHILD WELFARE— <i>Continued</i> —	
Midwives (Scotland) Acts ... ..	75
Maternity Bundles and Outfits ... ..	77
Ophthalmia Neonatorum and Results of Treatment ...	77
Puerperal Fever and Puerperal Pyrexia ... ..	79
IV. INFECTIOUS AND OTHER DISEASES—	
Infectious Disease Incidence, 1931-1951 ... ..	80
Immunisation Centre ... ..	81
Smallpox and Vaccination ... ..	83
Leprosy ... ..	83
Malaria ... ..	84
Enterica Infections and Dysentery ... ..	84
Scarlet Fever ... ..	85
Erysipelas ... ..	86
Puerperal Fever and Pyrexia ... ..	86
Diphtheria and Immunisation ... ..	87
Diseases of the Central Nervous System, Poliomyelitis, etc.	89
Measles—Incidence, 1946-1951 ... ..	93
Whooping Cough—Incidence, 1946-1951 ... ..	94
Chickenpox ... ..	95
Diarrhoea and Enteritis ... ..	96
Pemphigus Neonatorum ... ..	97
Rabies ... ..	97
Trachoma ... ..	97
Infective Jaundice ... ..	99
Anthrax ... ..	99
Scabies ... ..	100
<i>Respiratory Diseases other than Tuberculosis—</i>	
Pneumonia and Influenza—Mortality, 1950-1951 ...	100
<i>Tuberculosis—</i>	
Pulmonary Tuberculosis—Incidence, 1935-1951 ...	104
Ward Incidence and Mortality ... ..	107
B.C.G. Vaccination ... ..	109
<i>Venereal Disease—</i>	
Incidence, 1938-1951 ... ..	111
Contact Tracing ... ..	113
Congenital Syphilis, etc. ... ..	114
Venereal Disease in Seamen, etc. ... ..	115
Defaulters ... ..	117

SECTION	PAGE
V. MENTAL SERVICES—	
Boarded-out Patients ... ..	118
Lunacy Certification ... ..	120
Certification of Old People ... ..	120
VI. BLIND PERSONS—	
Age and Sex Incidence ... ..	122
Follow-up Scheme ... ..	124
Cause of Blindness ... ..	124
VII. WORK OF PORT HEALTH AUTHORITY—	
Inspection of Ships ... ..	126
Port Sanitary Regulations—Declaration of Health ...	129
Aliens Act ... ..	131
Prevention of Pests (Application to Shipping) Order, 1951	131
Rodent Control ... ..	132
Fumigation of Ships ... ..	133
Hygiene in Crews' Spaces ... ..	134
Food Inspection and Imported Food Regulations ...	137
Report by the Veterinary Surgeon ... ..	144
VIII. HOUSING—	
Provision of Houses ... ..	145
Rehousing of Tuberculous Families ... ..	148
Rent and Mortgage Interest Restrictions Acts ...	149
Overcrowding ... ..	149
Uninhabitable Houses ... ..	150
Inspection of Housing Schemes ... ..	151
Work of Disinfestation Unit, etc. ... ..	160
IX. BACTERIOLOGICAL LABORATORY—	
Infectious Disease. Epidemiological Investigations ...	162
Food Poisoning, etc. ... ..	167
Ante-natal—Rh Tests ... ..	171
Milk Supply ... ..	171
Water and Other Examinations ... ..	173
Original Investigations ... ..	174

SECTION	PAGE
X. FOOD—	
Food Poisoning ... ..	178
Operations under Food and Drugs (Adulteration) Act, 1928, etc. ... ..	183
Unsound Food ... ..	189
Inspection of Food and Food Premises ... ..	191
Milk (Special Designation) (Scotland) Order, 1951 ... ..	192
Tubercle Bacilli, etc., in Milk ... ..	196
Supply of Milk to School Children ... ..	198
Ice-Cream (Scotland) Regulations ... ..	201
Prosecutions ... ..	207
Operations under the various Acts, 1945 to 1951 ... ..	208
XI. AIR PURIFICATION—	
Summary of Work of Department ... ..	210
Soot Collecting Gauges ... ..	215
Classes on Boilerhouse Practice ... ..	217
The Menace of Polluted Air ... ..	219
XII. GENERAL SANITARY ADMINISTRATION—	
<i>Reports by Divisional Sanitary Inspectors—</i>	
Central Division ... ..	236
<i>Survey of Catering Establishments</i> ... ..	239
Northern Division ... ..	243
<i>Common Lodging Houses</i> ... ..	245
<i>Rodent Control</i> ... ..	248
<i>Survey of Bakehouses and Fish Restaurants</i> ... ..	250
<i>Housing Surveys—Woodside Ward</i> ... ..	256
Eastern Division ... ..	266
South Eastern Division ... ..	274
South Western Division ... ..	280
<i>Rag Flock and Other Filling Materials Act,</i> 1951, etc. ... ..	282
Offensive Trades ... ..	286
Disinfection ... ..	287
XIII. OCCUPATIONAL HEALTH—	
Work done by Occupational Health Unit ... ..	290
Incidence of Ear Conditions, Minor Defects of Feet, etc. ... ..	292

SECTION	PAGE
XIV. WELFARE SERVICES—	
Residential Accommodation ... ..	298
Welfare of Handicapped Persons, etc. ... ..	304
Visiting Service ... ..	309
XV. LEGISLATION ... ..	310

## APPENDIX TABLES

TABLE	PAGE
I. Estimated Population in Municipal Wards, Acreage, etc.	315
II. Inhabited and Unoccupied Houses in Municipal Wards	316
III. Linings Granted by Dean of Guild Court ... ..	317
IV. Abstract of Meteorological Observations at Glasgow	317
V. Births and Birth-rates and Illegitimate Births in Wards	318
VI. Deaths and Death-rates in Wards ... ..	319
VII. Outward and Inward Transfer Deaths ... ..	320
VIII. Deaths and Death-rates from different Diseases ...	321
IXA. Sex and Age Distribution of Deaths (Males) ... ..	322
IXB.                   Do.                   Do.                   (Females) ...	323
X. Deaths occurring in Institutions, Nursing Homes, etc.	324
XI. Stillbirths and Infant Mortality—in Wards ... ..	325
XII. Infant Deaths at Given Ages and from certain causes	326
XIII. Abstract of Notifications under Notification of Births Act, 1907, and results of Visits ... ..	327
XIV. Births Notified—Medically and not Medically attended	327
XV. Cases of Infectious Disease Registered and Number Treated in Hospital ... ..	328
XVI. Cases of Infectious Disease Registered in Months ...	329
XVII. Operations of Sanitary Sections ... ..	330
XVIII. Population ; Births and Deaths ; Birth-rates and Death-rates per 1,000 ; also Deaths under 1 year, and Death-rates per 1,000 Births since 1881 ...	339

## APPENDIX B

Report on Work of Glasgow Infectious Disease Hospitals ...	341
Dismissals and Deaths, according to Age and Sex, of cases of Infectious Diseases treated in the Four Fever Hospitals, for the Year 1951 ... ..	350

## ILLUSTRATIONS

(1) Frontispiece—Stoneleigh Residential Home	
(2) Tuberculosis—Death-rates per million for Glasgow and Scotland, since 1881 (Chart) ... ..	104
(3) Two 90-year-old residents of Woodburn	

## SECTION I.

### POPULATION, Etc.

In the Preliminary Report of the Census, issued in July, 1951, the enumerated population of the city was stated as 1,089,555. A comparison of this result with the local estimate, and the methods adopted to obtain such intercensal estimates, were fully discussed in last year's Annual Report.

The Census Report for Glasgow which has just been published (November, 1952) now shows a revised figure of 1,089,767 as the enumerated population of the city on the 8th April, 1951. At the previous Census taken in April, 1931, the population then enumerated was 1,088,461 and the 1951 figure therefore shows an increase of 1,366, or 0·1 per cent. During the intercensal period, however, there were two extensions of the city boundaries by which areas in the counties of Dunbarton, Lanark and Renfrew, with a total population of 4,876 in 1931, were added to the city. The present area of the city had, therefore, in 1931 a population of 1,093,337, and area for area the 1951 population is actually *less* by 3,570 or 0·3 per cent.

Instead of this decrease there would undoubtedly have been an increase in the city's population but for the losses sustained in the second world war, of which over 9,200 are inscribed in Glasgow's Book of Remembrance alone.

It should be remembered too that the enumerated population is that population actually present in the city on the night of the Census. If the number of persons usually resident in Glasgow but enumerated elsewhere on that date (10,349 in 1951) and the number of non-Glasgow residents enumerated in the city (7,529 in 1951) are taken into consideration the difference (2,820) brings the total population to 1,092,587. In 1931 the corresponding balance of persons normally resident in the city was considerably greater, 8,466, thus increasing the population to 1,096,927.

This may be regarded as one section of Glasgow's "floating" population; the other is that large and increasing number of persons whose work, business or studies, etc., brings into the city daily from



the various suburbs just beyond the boundary. The full extent of this daily flow of population will not be known until further information regarding place of employment of Glasgow residents and those persons living in the contiguous areas is published.

Again there is a considerably greater number of persons in the armed forces to-day compared with the last Census and the population would have been materially increased had all the young men and women of Glasgow now serving in the many theatres and stations overseas or elsewhere in Britain been at home. This loss is not counterbalanced by any corresponding increase in the numbers of service personnel in barracks, etc., within the city and it would seem, therefore, that the understatement of the enumerated population on this account is considerably heavier for 1951 than it was in 1931.

The natural growth of the population in the intercensal period 1931-1951 resulted in an excess of births over deaths of 134,250, or, if the added areas are taken into account, about 134,500. This gain has not been retained by the city. Some of it, as already pointed out, has been lost to the adjacent counties by "overspill" across the boundaries and the rest by migration. The Registrar General computes that Scotland lost some 220,000 persons in the intercensal period to England and Wales and to countries overseas, and assumes that if Glasgow contributed no more than its proportionate share this would account for a loss of some 45,000 persons.

*The Census figures have been used throughout for the calculation of rates, except where otherwise indicated. The populations estimated for each of the intercensal years have been adjusted and the rates for these years, where they appear in any comparative tables, have been similarly revised.*

In the short time which has elapsed since its publication it has not, of course, been possible to analyse fully the contents of the Census report and this will be done more exhaustively at a later date. The following tables, however, provide some of the basic facts with which the health statistics of the city are closely related.

*Sex and Age.* The female population has increased both actually and relatively to the male population. In 1931 women exceeded men by 39,513 and in 1951 this disparity had increased to 52,025. The relative proportions of the total population at the two Censuses were as follows :—

					Males.	Females.
1951	...	...	...	...	47·6	52·4
1931	...	...	...	...	48·2	51·8
Difference	...	...	...	...	<u>-0·6</u>	<u>+0·6</u>

It will be observed that while the proportion of males in the population has decreased by 0·6 per cent. that of the females has increased by exactly the same percentage. Females are now in the proportion of 110 to 100 males, a figure comparable with that of the country as a whole (109·3).

The following table compares the populations in each age group for each sex as at each census :—

PERCENTAGE OF THE POPULATION IN EACH AGE GROUP AT THE CENSUS,  
1931 AND 1951.

(The 1931 populations are for the area of the city as at the  
Census of 1951.)

				1951.		1931.	
Ages.				Number.	Percentage.	Number.	Percentage.
Males—	— 5	...	...	50,833	9·80	49,997	9·49
	—15	...	...	86,271	16·63	100,213	19·02
	—25	...	...	75,063	14·47	95,395	18·10
	—35	...	...	77,021	14·84	81,785	15·52
	—45	...	...	76,923	14·82	66,975	12·71
	—55	...	...	66,783	12·87	60,125	11·41
	—65	...	...	45,586	8·79	45,819	8·70
	+65	...	...	40,337	7·77	26,597	5·05
	N.S.	...	...	54	0·01	6	0·00
				<u>518,871</u>	<u>100·00</u>	<u>526,912</u>	<u>100·00</u>
Females—	— 5	...	...	48,515	8·50	49,357	8·71
	—15	...	...	84,728	14·84	99,266	17·53
	—25	...	...	86,886	15·22	104,163	18·39
	—35	...	...	82,228	14·40	93,019	16·42
	—45	...	...	82,930	14·53	76,728	13·55
	—55	...	...	75,199	13·17	64,348	11·36
	—65	...	...	57,100	10·00	45,277	7·99
	+65	...	...	53,245	9·33	34,263	6·05
	N.S.	...	...	65	0·01	4	0·00
				<u>570,896</u>	<u>100·00</u>	<u>566,425</u>	<u>100·00</u>

The proportion of children up to 5 years old is the largest five-year age group in the population of which they account for 9·1 per cent. In 1931 children between 5 and 10 years made up the largest proportion with 9·6 of the total. The number of children aged 5 at the date of the census is comparatively small, due to the fall of the birth-rate in 1945. The abnormally high birthrates in the following two years (1946 and 1947) has resulted in a larger number of children aged 3 and 4. The percentage under 15 years has decreased substantially. The apparent decrease in the male population at 18 and the immediately succeeding ages is probably largely due to the effect of national service.

The population is older and the average age has risen from 30·3 years in 1931 to 33·3 in 1951 (males 32·4 and females 34·2). There is a marked increase in the proportion of persons aged 65 and over and for every 1,000 of the population there are now 86 persons aged 65 and over as compared with 56 in 1931. This change, which has important implications for the health and welfare services of the city is shown more clearly in the following table :—

	MALES.		FEMALES.		BOTH SEXES.	
	Number	Percentage of male Population	Number	Percentage of female Population	Number	Percentage of total Population
1931—Under 15	150,210	28·5	148,623	26·2	298,833	27·3
15-64	350,099	66·4	383,535	67·7	733,634	67·1
65 and over	26,597	5·0	34,263	6·0	60,860	5·6
1951—Under 15	137,104	26·4	133,243	23·3	270,347	24·8
15-64	341,376	65·8	384,343	67·3	725,719	66·6
65 and over	40,337	7·8	53,245	9·3	93,582	8·6

*Note.*—The 1931 Populations are for the area of the city as at the Census of 1951.

*Age Constitution of Ward Populations.*—The following table taken from the Glasgow Census report should be studied in conjunction with the Appendix Tables. Mortality rates are closely related to the sex and age constitution of the population at risk and with the information now available it will be possible to assess more accurately the incidence of disease and the variations in mortality between the wards.

PERCENTAGE OF THE POPULATION IN EACH WARD  
IN THE FOUR MAIN AGE GROUPS.

Ward.					Age Group.			
					0-4	5-14	15-64	65+
Shettleston and Tollcross	...	...	...	...	9.0	16.5	67.8	6.7
Parkhead	...	...	...	...	9.0	15.0	68.0	8.0
Dalmarnock	...	...	...	...	11.2	17.0	64.7	7.1
Calton	...	...	...	...	10.2	15.4	64.6	9.8
Mile-end	...	...	...	...	11.0	18.1	64.0	6.9
Dennistoun	...	...	...	...	7.9	13.1	68.7	10.3
Provan	...	...	...	...	7.0	14.8	70.2	8.0
Cowlairs	...	...	...	...	9.7	15.6	64.7	10.0
Springburn	...	...	...	...	8.0	18.1	68.2	5.7
Townhead	...	...	...	...	10.7	15.8	64.5	9.0
Exchange	...	...	...	...	8.8	13.2	67.6	10.4
Anderston	...	...	...	...	10.4	16.6	64.5	8.5
Park	...	...	...	...	6.9	9.9	71.0	12.2
Cowcaddens	...	...	...	...	11.9	18.2	62.6	7.3
Woodside	...	...	...	...	11.3	15.6	64.6	8.5
Ruchill	...	...	...	...	8.9	17.0	68.0	6.1
North Kelvin	...	...	...	...	9.5	15.2	66.2	9.1
Maryhill	...	...	...	...	9.4	16.1	66.4	8.1
Kelvinside	...	...	...	...	5.9	9.4	69.1	15.6
Partick East	...	...	...	...	7.1	10.8	68.9	13.2
Partick West	...	...	...	...	9.6	15.9	65.0	9.5
Whiteinch	...	...	...	...	8.3	14.2	67.0	10.5
Yoker	...	...	...	...	6.8	15.0	70.8	7.4
Knightswood	...	...	...	...	6.6	15.6	70.8	7.0
Hutchesontown	...	...	...	...	11.9	16.8	64.4	6.9
Gorbals	...	...	...	...	11.6	17.8	63.8	6.8
Kingston	...	...	...	...	11.7	17.6	63.7	7.0
Kinning Park	...	...	...	...	10.5	15.9	65.3	8.3
Govan	...	...	...	...	11.1	18.2	63.8	6.9
Fairfield	...	...	...	...	9.0	14.0	68.2	8.8
Craigton	...	...	...	...	6.8	15.4	70.1	7.7
Pollokshields	...	...	...	...	7.0	18.5	66.3	8.2
Camphill	...	...	...	...	6.1	10.2	68.7	15.0
Pollokshaws	...	...	...	...	9.8	21.7	63.6	4.9
Govanhill	...	...	...	...	8.4	13.4	68.0	10.2
Langside	...	...	...	...	6.4	11.0	69.5	13.1
Cathcart	...	...	...	...	6.7	12.4	68.0	12.9
Glasgow City	...	...	...	...	9.1	15.7	66.6	8.6

(Figures extracted from Census Report on Glasgow.)

Cowcaddens and Hutchesontown have the highest percentage of children under 5 (11·9) and Kelvinside the lowest (5·9). This ward too has the lowest percentage of population aged 5-14 (9·4) in contrast to Pollokshaws with 21·7 per cent. The lowest proportion of the age group 15-64 is in Cowcaddens (62·6 per cent) and the highest in Park (71·0 per cent.). Kelvinside has the largest share of persons over 65 years (15·6 per cent.) while Pollokshaws has only 4·9 per cent.

*Conjugal Condition.*—The following table summarises the conjugal condition of the male and female population over 16 years of age at the last two censuses :—

	MALES.				FEMALES.			
	1931		1951		1931		1951	
	No.	%	No.	%	No.	%	No.	%
Single	146,093	39·8	115,890	31·0	159,998	39·2	130,005	30·3
Married	198,964	54·2	234,056	62·7	202,319	49·6	240,333	56·0
Widowed	21,717	5·9	21,192	5·7	45,080	11·0	55,860	13·0
Divorced	424	0·1	1,555	0·4	562	0·1	2,328	0·5
Not stated	84	0·0	624	0·2	56	0·0	579	0·1
	367,282	100·0	373,317	100·0	408,015	100·0	429,105	100·0

(Note.—The 1931 populations are for the area of the city as at the Census of 1951.)

The increase in the marriage rates during the war years and those immediately following is reflected in the larger proportion of the population now married in comparison with 1931. Most of the increase, in both sexes, is in the younger age groups, a fact which may later have a favourable effect on the birthrate. Widows outnumber widowers by 34,668, about half as many again as in 1931. The number of divorced persons also shows a significant increase.

*Birthplace.*—The following table shows the principal birthplaces of the population :—

				Males.	Females.	Total.	Percentage	
							1951.	1931.
Scotland	...	...	...	474,799	526,091	1,000,890	91·8	90·1
England	...	...	...	17,605	19,427	37,032	3·4	3·6
Wales	...	...	...	778	806	1,584	0·2	0·1
Northern Ireland	...	...		8,454	8,211	16,665	1·5	2·7
Irish Republic	...	...	...	8,847	8,814	17,661	1·6	2·1
Ireland (part not stated)	...			63	86	149	0·0	0·0
Isle of Man, Channel Islands				126	173	299	0·0	0·0
British Dominion Colonies, etc.				3,163	2,315	5,478	0·6	0·5
Foreign Countries	...	...		5,016	4,944	9,960	0·9	0·9
Born at Sea or Not Stated	...			20	29	49	0·0	0·0
				518,871	570,896	1,089,767	100·0	100·0

Of the total population enumerated in 1951, 1,000,890 or 91·8 per cent. were Scottish born compared with 90·1 in 1931 and 87·9 in 1921 and of this number 74 per cent. were born in Glasgow. In 1931 this figure was only 69 per cent. The number of persons born outside Scotland decreased from 9·9 per cent. in 1931 to 8·2 per cent. in 1951. Most of this decrease is due to a fall in the number of persons of Irish descent, now 34·2 per cent. fewer than in 1931.

*Ward Population.*—The number of wards, 37, remains the same as at the 1931 census but as a result of extensions of the boundaries in 1931 and 1938 and a large scale reconstitution in 1948 only five of the wards have remained unchanged in area. These are Cowcaddens, Woodside, Hutchesontown, Gorbals and Govanhill. With these exceptions the wards of 1931 and their populations are in no way comparable with the wards of 1951. The areas of wards have been altered. Whitevale, Blythswood, and Sandyford have been merged with other wards and new wards, Yoker, Knightswood and Craigton have been formed. The extent of these changes is shown in the following table which gives the acreage and population of each of the wards as at each Census :—



GLASGOW—POPULATION, ACREAGE AND NUMBER OF PERSONS  
PER HOUSE, ETC.

Ward No.	Ward as constituted in 1951.	Total Population		Acreage.		1951		
		1951	1931	1931	1951	Rooms per house.	Persons per room.	Percentage population living more than 2 per room.
1	Shettleston and Tollcross	42,609	39,869	1,022	1,167	2.63	1.47	27.3
2	Parkhead ...	21,578	39,418	883	819	2.66	1.37	24.9
3	Dalmarnock ...	40,621	35,824	288	487	1.90	1.80	43.2
4	Calton ...	26,273	34,389	333	404	2.24	1.58	37.2
5	Mile-end	40,171	21,430	191	443	2.05	1.73	40.8
	(Whitevale)		22,439	176				
6	Dennistoun ...	26,944	25,560	280	689	2.87	1.16	16.2
7	Provan ...	24,235	41,788	1,284	4,846	3.32	1.22	17.3
8	Cowlares ...	27,998	22,512	456	645	2.11	1.59	32.2
9	Springburn ...	35,649	25,547	2,261	2,118	3.01	1.40	18.6
10	Townhead ...	35,005	27,376	175	301	2.28	1.51	32.3
11	Exchange ...	20,089	16,523	289	507	2.67	1.35	29.4
	(Blythswood)		13,705	242				
12	Anderson ...	31,902	26,909	422	530	2.41	1.50	33.2
	(Sandyford)		20,232	152				
13	Park ...	23,758	20,727	272	317	3.94	0.89	8.6
14	Cowcaddens ...	27,229	35,723	488	488	2.08	1.72	41.6
15	Woodside ...	26,946	33,072	170	170	2.25	1.51	36.4
16	Ruchill ...	45,929	41,243	1,766	1,962	2.89	1.46	24.2
17	North Kelvin ...	25,817	21,029	146	278	2.52	1.26	26.8
18	Maryhill ...	25,515	25,524	1,391	2,210	2.52	1.42	28.0
19	Kelvinside ...	21,032	23,348	1,127	1,160	4.16	0.68	2.0
20	Partick East ...	23,376	28,541	268	351	3.74	0.85	8.4
21	Partick West ...	26,814	23,730	357	464	2.45	1.29	29.6
22	Whiteinch ...	23,241	56,430	2,696	894	3.12	1.09	18.3
23	Yoker ...	30,198			1,213	3.34	1.15	10.1
24	Knightswood ...	17,530			1,614	3.45	1.16	10.4
25	Hutchesontown ...	30,965	38,851	387	387	1.81	1.82	44.2
26	Gorhals ...	36,648	46,831	252	252	2.36	1.66	41.9
27	Kingston ...	26,895	30,336	285	355	2.34	1.56	35.1
28	Kinning Park ...	28,124	35,763	379	402	2.43	1.41	30.5
29	Govan ...	35,152	35,969	529	489	2.37	1.62	38.6
30	Fairfield ...	25,132	32,188	1,402	1,351	2.55	1.38	22.3
31	Craigton ...	40,448			1,566	3.88	0.98	5.2
32	Pollokshields ...	39,956	28,842	4,678	3,239	4.41	0.98	5.7
33	Campbell ...	22,529	19,007	366	481	3.44	0.84	3.5
34	Pollokshaws ...	39,717	21,171	1,847	3,223	3.43	1.30	18.5
35	Govanhill ...	26,377	32,514	365	365	2.56	1.22	15.6
36	Langside ...	25,578	17,980	557	801	3.90	0.80	1.4
37	Cathcart ...	21,787	26,121	1,327	2,737	4.01	0.78	3.8
	City ...	1,089,767	1,088,461	29,511	39,725	2.82	1.27	24.4

Distribution of the population north and south of the river and in the five divisions of the city is shown in the following table which compares these areas as *they were in 1931* with those of 1951.

Divisions.		Population.		Increase or Decrease.
		1951	1931	
East	...	222,431	218,929	+ 3,502
Central	...	250,088	273,814	- 23,726
North	...	217,940	230,145	- 12,205
North of the River	...	690,459	722,888	- 32,429
South-East	...	203,601	202,475	+ 1,126
South-West	...	195,707	163,098	+ 32,609
South of the River	...	399,308	365,573	+ 33,735



It is apparent from these figures that there has been a considerable movement of population from the north of the river to areas south and west. The Registrar General who *includes the populations of the added areas in his comparison* computes that that part of the city north of the river lost 36,570 of its population between 1931 and 1951 while the population south of the river increased by 33,000.

All the individual wards and all the larger areas except those containing Knightswood, North Kelvin and Springburn respectively showed a loss of population. The shift from the older central areas was apparent in the decreases noted in such wards as Woodside (18·5 per cent.), Cowcaddens (23·8 per cent.) and the Anderston-Park group (18·0 per cent.).

Another built up area of the city, extending east, and comprising the wards of Exchange, Calton, Mile-End, Dalmarnock, Parkhead and Shettleston and Tollcross, decreased by 14·6 per cent. Such areas, north of the river, which did show any increase were mostly those where there has been housing development in the intercensal years.

In all the wards bordering the south bank, largely industrial and very congested, there have been appreciable decreases, especially in Gorbals and Hutchesontown (21·7 per cent. and 20·3 per cent. respectively). On the western and southern outskirts of the city there has been a remarkable increase due to the extensive new housing developments in this area. In the area covered by the present wards of Craigton and Pollokshields the population has increased by 178·8 per cent. and in the Camphill-Pollokshaws area by 52·7 per cent.

*Institutional Population.*—On the 30th June each year a special census of persons resident in hospitals, institutions, hotels, etc., is taken by the district inspectors. As the Glasgow figures of the 1951 Census have not yet been fully analysed the figures shown here and in Appendix Table I are those of the annual local survey. Squatters are also included in this return. In 1951 the total was 29,662 compared with 29,611 in the previous year. The largest number in any one ward was 3,717 in Exchange where most of the hotels are situated, and 2,799 in Springburn, almost wholly composed of the hospital populations of Stobhill and Robroyston. Hawkhead Mental Hospital and Crookston Home accounted for more than half of the 2,240 persons in Pollokshields Ward, while the remainder were distributed throughout the various nursing and

residential homes (for children and for elderly persons) which are a feature of this area. Increases were recorded in Maryhill (402), Kelvin-side (196) and Knightswood (112) in the local barracks, a mental hospital and a children's hospital respectively. The major decreases were in Calton (144), Park (138), Whiteinch (127) and Cowcaddens (117).

The institutional population is accommodated as follows :—

General Hospitals	...	...	...	...	3,661
Fever Hospitals	...	...	...	...	1,582
Mental Hospitals	...	...	...	...	3,024
Sanatoria and other Hospitals	...	...	...	...	6,106
Hotels	...	...	...	...	1,979
Common-Lodging-Houses	...	...	...	...	4,500
Hostels, etc.	...	...	...	...	3,010
Special Institutions (Barracks, etc.)	...	...	...	...	4,413
Squatters	...	...	...	...	1,387
					<hr/> 29,662 <hr/>

*Acreage.*—The area of the City remains unaltered at 39,725 acres. The following table shows the progress of the City's expansion since the beginning of the Century :—

1901	...	...	12,681 acres
1911	...	...	12,975 acres
1921	...	...	19,183 acres
1931	...	...	29,511 acres
1951	...	...	39,725 acres

The 37 wards of the City vary considerably in size, from the smallest, Woodside with 170 acres to Provan with 4,846 acres. Cowcaddens, Woodside and Gorbals are the only three wards which have remained unchanged in area throughout the various extensions to the City and alterations in ward boundaries which have taken place since the wards were first "recast" in 1920.

*Density.*—The average density of the City is 27 and compares favourably with the figure of 37 shown by the 1931 Census. This decrease is due to the extension of the City Boundaries in the intervening years. As a result of these extensions and of the re-arrangement of ward boundaries which took place in 1948, an exact comparison of the ward densities at the two Census periods is not possible in more than five instances. The following wards have remained unchanged in area since 1931 and the following table shows the reduction in their density since then :—

Acreage in 1931 and 1951				Density	
				1931	1951
Woodside ...	...	170		195	158
Gorbals ...	...	252		186	145
Hutchesontown ...		387*		100	80
Govanhill ...	...	365		89	72
Cowcaddens	...	488		73	56

\* Original figure of 389 corrected to 387 in 1938.

In 1931, twelve of the 37 wards had densities of 100 and more persons per acre and only eleven were below the city average. In 1951 only three wards had densities of this high order, viz., Woodside (158), Gorbals (145), and Townhead (116). Wards with low densities in 1951 were Provan (5), Cathcart (8), Knightswood (11), and Maryhill, Pollokshields and Pollokshaws, all with densities of 12. Fourteen wards in all had densities below the City average and of these, three were closely comparable with it, namely—Parkhead, Whiteinch and Craigton all with densities of 26.

*Occupied Houses.*—The return of occupied houses as at Whitsunday, adjusted for habitant occupiers and shops used as houses, etc., is supplied by the City Assessor. The total for 1951 was 301,991 compared with 299,038 in 1950, an increase of 2,953. The distribution of these throughout the municipal wards of the City is shown in Appendix Table II. The largest increases were 1,509 in Pollokshaws and 1,024 in Pollokshields, due in both instances to housing schemes in these areas and also in Pollokshields to some transformation of large houses into service flats. Other increases due to the progress made in house-building in the respective areas were Springburn (397), Ruchill (382), Provan (295), Yoker (154) and Whiteinch (77). The greatest decrease (115) was in Partick East, due partly to many requisitioned houses now being returned to their owners and consequently reverting to single occupancy. In addition, there was some demolition of houses in this ward. Demolition of dangerous properties or old houses accounted also for most of the decrease of 106 in Exchange Ward and 112 in Woodside Ward.

The number of occupied houses in the City according to size is as follows :—

				Comparison with 1950		
One Apartment	...	...	35,000	Decrease	...	279
Two Apartments	...	...	109,358	Decrease	...	461
Three Apartments	...	...	84,435	Increase	...	537
Four Apartments	...	...	49,355	Increase	...	3,123
Five Apartments and Over	...	...	23,843	Increase	...	33
			<u>301,991</u>			

*Unoccupied Houses.*—There were 1,044 empty houses in the City at Whitsunday, 1951, compared with 652 in 1950. This increase of 392 is due probably to the growing practice of offering houses in tenement properties for sale whenever there is any change in the present tenancy. One hundred and seven of the houses were in Partick East (an increase of 58 from the previous year) and almost half of this number were houses of five and more apartments. In Kelvinside Ward there were 105 (2 less than in 1950) and here, too, almost half of these were houses of five and more apartments. Increases were noted in all but five of the wards, especially in Park (37), Langside (23), Partick West (22), Townhead (22), and Calton (22.)

## NUMBER OF UNLET HOUSES.

	1951	1950	1949	1948
1 Apartment ...	169	117	107	94
2 Apartments ...	250	142	89	67
3 Apartments ...	218	144	86	46
4 Apartments ...	154	92	59	37
5 Apartments ...	253	157	100	70
	<u>1,044</u>	<u>652</u>	<u>441</u>	<u>314</u>

*Dean of Guild Linings.*—During the year ended 31st August, 1951, 6,849 linings were granted, an increase of 1,074 on the number for the previous year. Details of the numbers and size of house for which these were granted are given in Appendix Table III with a comparison of the figures for the preceding years from 1919. Of the total linings granted, 3,497 were for three apartments, 2,881 for four apartments, and 287 for houses of larger size. In addition, 10 one-apartment houses for aged and single persons are to be erected in the Cranhill Scheme and 174 two-apartment houses for aged couples in the Barlanark and Ruchazie Schemes.

*Meteorology.*—The weather, like that of 1950, was wet and cold. The stormy early months were marked by comparatively wintry conditions and apart from a few milder intervals these conditions persisted well into April. Snowfalls and blizzards occurred in the first three months and temperatures were below their seasonal average until the end of May. The lowest temperature, 21°, was recorded on 12th March. Although temperatures from June onwards were higher than usual the average for the year was, as in 1950, less than the average of each of the three preceding ten-year periods. The highest temperature recorded for the country as a whole was 81° in Glasgow on 5th June. Rainfall was less in amount, 41·46 ins. compared with 45·37 ins. in 1950, and 42·21 ins. the average of the preceding ten years. Rain fell on 221 days but was very unequally distributed throughout the twelve months. The wettest months were November (6·01 ins.), December (5·65 ins.) and January (5·23 ins.). October, normally one of the wettest months, had only 0·97 ins. rain on 12 days, and was the third driest October in the past 85 years. February to June was also comparatively dry, and except for a "trace" on the 27th May, the last six successive days of that month and the first ten of June made up a period of "absolute drought" (i.e., 15 days or more with no measurable rain).

The sunshine record was about the same, 1,182 compared with 1,181 in 1950, with May as the sunniest month, contributing 213·9 hours. July and August were duller than usual and March, with only 64 hours sunshine was the duller since 1938. April, May and June were all over average.

Fog occurred on 24th January and on 13th December and on both occasions was dense enough to disrupt transport services in the area.

High winds and gales were frequent throughout the year and especially towards its close, when winds of exceptional force caused widespread damage.

An abstract of the meteorological observations for each month of the year and a comparison of the annual averages of preceding years is given in Table IV of the Appendix.



## SECTION II.

## VITAL STATISTICS.

The following is a summary of the principal vital statistics of the City :—

## SUMMARY.

	1947.	1948.	1949.	1950.	1951.
Population ... ..	1,090,752	1,090,506	1,090,260	1,090,013	1,089,767
Acreage ... ..	39,725	39,725	39,725	39,725	39,725
Persons per acre ... ..	28	28	28	28	27
Number of Inhabited Houses ... ..	291,407	293,814	296,431	299,038	301,991
Deaths—Number registered ... ..	16,412	14,638	15,248	15,043	15,250
Deaths—After correction for Transfers ... ..	15,267	13,620	14,203	14,090	14,312
Births—Number registered ... ..	27,237	22,917	21,584	20,633	20,736
Births—After correction ... ..	25,829	22,292	20,923	20,031	20,091
Death rate per 1,000 living—All causes ... ..	14·00	12·49	13·03	12·93	13·13
Birth rate per 1,000 living ... ..	23·67	20·44	19·19	18·38	18·44
Deaths under One Year—After correction ... ..	1,989	1,241	1,033	879	922
Deaths under One Year—Per 1,000 births ... ..	77	56	49	44	46

Particulars of the causes of mortality together with the rates are given in Table VIII in the Appendix, and the age and sex distribution in Table IX.

## BIRTHS.

There was a slight check in the downward trend of the birth rate during 1951, and, after adjustment for inward and outward transfers, the number of births registered was 20,091, sixty more than in 1950, when the lowest number since the beginning of the century was recorded. In 1931, with a comparable population, the number of births registered was 22,926. The trend in the rate over the past twenty years is shown in the following table :—

1930-34 ... ..	22,433	1947 ... ..	25,829
1935-39 ... ..	22,042	1948 ... ..	22,292
1940-44 ... ..	21,302	1949 ... ..	20,923
1945 ... ..	20,294	1950 ... ..	20,031
1946 ... ..	23,560	1951 ... ..	20,091

The birth rate was 18·44 compared with the revised rate of 18·38 in 1950. (The rates for the intercensal years have been recalculated as a result of changes in the intercensal populations following the 1951

Census.) In only other three years were similar low rates recorded, 18·6 in 1941 and 1945, and 18·9 in 1942. The rate for Scotland has declined from 17·9 in 1950 to 17·7 in 1951. While the Glasgow rate is considerably higher than that of Edinburgh, 15·7, it is also much lower than those of other industrial areas of Clydeside.

The proportion of male births decreased slightly and at 51·5 per cent. was about the average for the past ten years. This advantage at birth is not maintained in infancy when male mortality is invariably higher than the female.

Ward birth-rates ranged from 10·9 in Cathcart to 27·6 in Gorbals which invariably has the highest rate of all the wards. Nineteen of the wards had rates above the city average, and one ward, Pollokshaws, had the same rate as for the City. Other wards with high rates were Kingston 25·4; Hutchesontown 24·6; Townhead 24·2; Dalmarnock 23·8.

In contrast to these were the low rates of the more residential areas, 10·9 in Cathcart, Camphill 11·6, Kelvinside 12·0, Knightswood 12·0, Langside 12·4, Yoker 12·7, and Craigton 12·9.

In four of these wards the population is failing to replace itself, and for the past four years the number of deaths has been in excess of the births, as shown in the following table :—

		1951		Decrease (1951)	Decrease (1948-1950)
		Births	Deaths		
Camphill	...	259	362	103	53
Cathcart	...	236	316	80	71
Langside	...	305	380	75	15
Kelvinside	...	237	282	45	59

Partick East also showed an excess of deaths over births of 4.

*Illegitimate Births.*—During the year, 1,061 births were registered compared with 1,097 in 1950. This represents 5·3 per cent. of the total births compared with 5·5 in 1950 and 5·6 in 1949. The number of illegitimate births in each municipal ward and the respective percentage of the total births are given in Table V. The highest ward rates were 12·3 in Provan, 10·3 in Gorbals, and 10·2 in Exchange. Park had a rate of 9·0, and other wards with rates above the city average were Parkhead 7·0, Calton 6·4, Woodside 6·3, Anderston 5·9, Townhead 5·8, and Kingston 5·6. The lowest rate was that of Camphill 1·5. Other wards with low rates were Kelvinside 1·7 and Craigton, 2·9.

## MARRIAGES.

There was an increase in the number of marriages during 1951, 10,491 compared with 9,939 in 1950. This represents 9·6 per thousand of the population as against 9·1 for the preceding year ; and compares with the period 1931-1940 when the marriage rate was 9·7. The following table shows the trend of the marriage rate since 1871 :—

## MARRIAGES PER THOUSAND PERSONS LIVING.

1871-1880	...	...	9·1	1941-1945	...	...	11·0
1881-1890	...	...	9·3	1946	...	...	10·3
1891-1900	...	...	9·4	1947	...	...	10·0
1901-1910	...	...	8·8	1948	...	...	10·0
1911-1920	...	...	9·7	1949	...	...	9·5
1921-1930	...	...	8·9	1950	...	...	9·1
1931-1940	...	...	9·7	1951	...	...	9·6

## DEATHS.

The number of deaths registered in the city during the year was 15,250, but after adjustment for inward and outward transfers this figure was reduced to 14,312. The death rate 13·13 shows an increase on that of the preceding year, 12·93, and exceeds the rate for Scotland which was 12·9. In the following statement, which summarises the death rates since 1881, the rates from 1931 onwards have been revised following readjustment of the intercensal populations in the period 1931 to 1951 :—

## GLASGOW—ALL CAUSES—DEATH RATE PER 1,000 LIVING.

1881-1890	...	...	24·22	1941-1945	...	...	13·62
1891-1900	...	...	21·53	1946	...	...	13·29
1901-1910	...	...	19·56	1947	...	...	14·00
1911-1920	...	...	16·36	1948	...	...	12·49
1921-1925	...	...	15·49	1949	...	...	13·03
1926-1930	...	...	15·04	1950	...	...	12·93
1931-1935	...	...	14·17	1951	...	...	13·13
1936-1940	...	...	14·75				

The number of deaths and relative death rates in each ward of the city are shown in Appendix Table VI compared with the revised rates for the two previous years.

Sixteen of the wards had rates above the city average, Camphill heading the list with 16·2 and followed by Exchange 15·8, Langside

15·5, Park 15·4, Partick East 15·2 and Dennistoun 15·1. Kelvinside, Camphill, Langside and Cathcart again showed an excess of deaths over births. The lowest rate was that of Pollokshaws (9·4). Pollokshields and Springburn also had low rates of 9·9 and 10·0 respectively.

*Relative Frequency of Causes of Death* :—The changing trend in mortality over the past twenty years is shown in the following comparison of the first ten causes of death in 1931 and in 1951 :—

1931				1951			
Cause of Death			Per Cent. All Causes	Cause of Death			Per Cent. All Causes
Heart Disease	...	2,200	14	Heart Disease	...	3,907	27
Pneumonia	...	1,533	10	Malignant Neoplasms	...	2,181	15
Cancer	...	1,516	10	Vascular lesions affecting			
Cerebral Haemorrhage	...	1,011	6	the Central Nervous			
Pulmonary Tuberculosis	...	941	6	System	...	1,833	13
Congenital Debility	...	914	6	Bronchitis	...	740	5
Suicide and Other Deaths				Pulmonary Tuberculosis		694	5
from Violence	...	653	4	Suicide, Road Traffic			
Bronchitis	...	495	3	Accidents and Other			
Whooping Cough	...	464	3	Violent Causes	...	567	4
Measles	...	416	3	Senility, Ill-defined and			
				Unknown Causes	...	535	4
				Pneumonia	...	528	4
				Hypertension with Heart			
				Disease	...	213	1
				Birth Injuries, Post-			
				natal Asphyxia and			
				Atelectasis	...	199	1
All Causes	...	15,505		All Causes	...	14,312	

It should be noted that changes in classification and in the rules of selection of the underlying cause of death have occurred in the period under review, the most recent, in 1950, being fully discussed in the Report for that year.

Heart disease not only retains its lead as the chief cause of death, but is now almost twice as common as in 1931. Pneumonia has been replaced by cancer as second on the list, and now takes eighth place. Vascular lesions, the third most frequent cause of death, accounted for 13 per cent. of all deaths compared with only 6 per cent. attributed to cerebral haemorrhage in 1931. Fifty-five per cent. of all deaths were due to these first three causes together. Pulmonary tuberculosis retains its place as fifth in 1951 as in 1931 and now shares a similar proportion of deaths as bronchitis which moved up from eighth place in 1931 to fourth in 1951.

*Causes of Death.*—The following table is a summary of the causes of death as shown in Appendix Table VIII arranged in the principal groups according to the International Classification adopted in 1950 and comparison with those of 1949 should therefore be made with the reservation that this will not be strictly accurate owing to the alterations in classification then made.

SUMMARY OF DEATH RATES PER MILLION FROM PRINCIPAL CAUSES.

	1949*	1950*	1951
General Diseases—			
(a) Infectious ... ..	224	144	124
(b) Tuberculosis—			
(1) Respiratory ... ..	1,028	874	637
(2) Non-Respiratory ... ..	129	118	90
(c) Malignant (Cancer, etc.) ... ..	1,975	2,006	2,002
Diseases of the Nervous System (including Mental Disorders) ... ..	1,516	1,834	1,918
Diseases of the Circulatory System ... ..	4,070	3,923	4,156
Diseases of Respiratory System (including Influenza) ... ..	1,105	1,284	1,440
Diseases of Digestive System ... ..	383	379	405
Congenital Defects and Diseases of Early Infancy ... ..	521	519	550
Violence ... ..	502	504	520
All Other Causes ... ..	1,574	1,341	1,291
	<u>13,027</u>	<u>12,926</u>	<u>13,133</u>

\* Revised rates.

*Infectious Diseases.*—Mortality from the acute infectious diseases declined still further from 144 per million in 1950 to 124 in 1951, the lowest rate so far recorded for this group. Twenty years ago rates of 900 to over 1,000 were common, but from 1934 onwards the mortality has fallen steadily to its present low level. Almost a third of the deaths in this group were from diarrhoea and enteritis (under two years of age) with a rate of 53 compared with 74 in 1950. Whooping cough was more prevalent during the year and the death rate, in consequence, higher—23 as against 12 in 1950. Nineteen of the 25 deaths occurred in the first quarter of the year. The measles rate on the other hand was less than half that of the previous year, 6 and 14 respectively. There was one death from scarlet fever, a female under 5 years of age.

It is disappointing to record that there were 4 deaths from diphtheria this year, all of them children who had not been immunised.



Meningococcal infections caused 15 deaths compared with 13 in 1950 and two adults under 35 years, one male and one female, succumbed to poliomyelitis. There were 22 deaths from acute infectious encephalitis.

*Tuberculosis.*—The death rate from pulmonary tuberculosis has fallen still further to the record low rate of 637 compared with 874 in 1950 and 1,028 in 1949.

The age distribution stated as a percentage of the total deaths was as follows :—

		—15	—20	—25	—35	—45	—55	—65	65+	All Ages
MALES—										
1951	...	2.1	2.8	5.8	13.1	16.1	20.7	24.9	14.5	100.0
1950	...	4.1	3.0	8.5	14.6	18.2	21.9	18.7	11.0	100.0
FEMALES—										
1951	...	5.7	9.0	18.1	23.0	18.5	9.1	8.7	7.9	100.0
1950	...	4.5	9.9	22.2	32.5	15.5	6.9	5.1	3.4	100.0

Publication of the census figures of the age distribution of the population has made it possible to calculate the specific death rates for this disease and to compare them with similar rates in 1931 as follows :—

RATES PER 1,000 POPULATION IN EACH AGE GROUP.

		—15	—20	—25	—35	—45	—55	—65	65+	All Ages
MALES—										
1931	...	0.10	1.08	1.43	1.23	1.51	1.54	1.32	0.60	0.96
1951	...	0.06	0.32	0.65	0.73	0.90	1.33	2.35	1.54	0.83
FEMALES—										
1931	...	0.28	1.31	1.69	1.07	0.89	0.61	0.60	0.21	0.78
1951	...	0.11	0.55	1.10	0.74	0.59	0.32	0.40	0.39	0.46

This table shows a satisfactory reduction in the mortality rates for both sexes and especially for females whose rate has fallen by 0.32 per 1,000 and is now almost half the death rate for males. While the male rates in certain age groups, 20 to 45, show a greater improvement than the female rates, the sex difference is most noticeable in the age groups 55 and over. The rate for males—65 years has almost doubled in contrast to the rate for females which has fallen from 0.60 to 0.40. Each sex shows an increase in the over 65 age group, but here again the male rate is higher.

The rate for non-pulmonary tuberculosis fell from 129 in 1949 and 118 in 1950 to 90 in 1951. The tubercular meningitis rate decreased



from 64 in 1950 to 53 in 1951. Abdominal tuberculosis showed little change with a rate of 10 compared with 9 in 1950 and 11 in 1949.

*Diseases of the Nervous System.*—The rate for this group rose from 1,834 in 1950 to 1,918 in 1951 and more than half of the increase was contributed by vascular lesions. This cause alone accounted for 1,833 of the 2,091 deaths in the group and now ranks third in the list of causes of death as shown on page 40.

Eighteen deaths were due to non-meningococcal meningitis and 47 deaths resulted from certain mental disorders which the new classification now allots to this group. Other diseases of the nervous system which the Short List now includes in the "All Other Diseases" group accounted for 193 deaths as against 160 in 1950.

*Diseases of the Circulatory System.*—Thirty-two per cent. of all the deaths in 1951 were in this group and the rate increased from 3,923 in 1950 to 4,156 in 1951. Most of this increase is attributable to arteriosclerotic and degenerative heart disease which accounted for 3,442 deaths, 24 per cent of the deaths from all causes in 1951. The rate increased from 2,930 in 1950 to 3,158 in 1951.

Thirty-six per cent. of these deaths took the form of coronary thrombosis and the following comparison of the specific death rates for this and the related form, angina pectoris, shows a startling increase since 1931, especially for males.

#### RATES PER 1,000 POPULATION OF EACH SEX AND AGE GROUP.

	—15	—20	—25	—35	—45	—55	—65	—75	75+	All Ages
<i>Angina Pectoris—</i>										
MALES—										
1931	—	—	—	—	0.07	0.15	0.46	0.95	0.93	0.11
1951	—	—	—	—	—	0.01	0.11	0.03	0.36	0.02
FEMALES—										
1931	—	—	—	—	0.01	0.05	0.16	0.36	1.35	0.06
1951	—	—	—	—	—	0.01	0.04	0.05	0.31	0.02
<i>Coronary Thrombosis—</i>										
MALES—										
1931	—	—	—	—	0.03	0.10	0.18	0.71	1.12	0.07
1951	—	—	—	0.06	0.57	2.23	5.73	9.29	12.02	1.67
FEMALES—										
1931	0.02	—	—	—	—	0.09	0.07	0.32	0.79	0.04
1951	—	0.02	—	—	0.07	0.43	1.58	4.31	6.32	0.68

Chronic Rheumatic Heart Disease accounted for 237 deaths compared with 226 in 1950 and of these, two were in children under 15 years of age (rheumatic fever caused three deaths in children in this age group). Two hundred and twenty-eight deaths were attributed to "other diseases of the heart", and the rate rose from 177 in 1950 to 209 in 1951. There were 358 deaths from hypertension compared with 365 in 1950. The remaining 265 deaths were due to a variety of circulatory disorders which do not appear on the Short List and are now included in "All Other Diseases" group. The number allocated to this group in 1950 was 298.

*Diseases of the Respiratory System.*—The severe weather conditions at the beginning of the year were reflected in a rise in mortality from respiratory diseases from 1,284 in 1950 to 1,440 in 1951. Bronchitis was the major cause in this group, accounting for 740 of the 1,569 deaths. The rate was 679, an increase of 40 on the rate for 1950. Pneumonia was the cause of 528 deaths with a rate of 485 compared with 467 in 1950. Influenza was prevalent during the early months of the year and was responsible for 183 deaths. The rate, 168, was more than three times the rate for 1950. "Other respiratory diseases" accounted for 118 deaths, the rate of 108 being somewhat lower than that of 1950 which was 126.

*Diseases of the Digestive System.*—Some increase in the rate for this group was recorded during the year, 405 compared with 379 in 1950, most of it among the varied conditions grouped as "Other Digestive Diseases." One hundred and five deaths were classified under this heading compared with 75 in 1950. Ulceration of the stomach and duodenum showed little change with a rate of 118 against 113 in 1950. The appendicitis rate decreased from 35 in 1950 to 25 in 1951, and there was a fall in the rate for gastritis and duodenitis, 3 compared with 13 in 1950. Intestinal obstruction and hernia showed an increase, 72 in 1951 as against 68 in 1950, as did also enteritis and colitis (over 2 years of age). The rates for this cause were 39 in 1950 and 49 in 1951. Cirrhosis of the liver remained almost unchanged with a rate of 41.

*Deaths from Violence.*—The rate per million for this group rose again in 1951, from 504 in 1950 to 520 in 1951. Of the 567 deaths 76 were attributable to motor vehicle accidents, 459 to all other accidents, 29 to suicide and self-inflicted injury and 3 to homicide and operations of war.

Statistics are not at present available for Glasgow on the number of accidents occurring in the home, but a recent estimate for Scotland as a whole was 41 per cent. of all fatal accidents in 1949. About one fifth of all deaths from domestic accidents were among children under 15 years of age.

The following summary supplies fuller details of the age and sex distribution and shows the preponderance of male deaths at all ages :—

Year	MALES					FEMALES				
	—5	—15	—45	+45	Total	—5	—15	—45	+45	Total
1941	45	57	170	361	633	33	28	44	178	283
1945	37	67	77	179	360	25	19	24	125	193
1946	29	43	81	201	354	28	10	28	133	199
1947	47	39	91	187	364	21	13	24	130	188
1948	38	36	96	175	345	24	10	26	139	199
1949	44	40	101	152	337	29	14	35	132	210
1950	40	23	92	181	336	19	13	20	161	213
1951	37	38	83	180	338	32	9	29	159	229

Accidents are also common in the elderly and infirm. In 1951 12 per cent. of the male deaths were in age group 65+ and 16 per cent. in the over 75's. The number of fatal accidents in elderly women in the same groups were more numerous, 20 per cent. and 34 per cent. respectively.

*Age and Sex Distribution.*—Details of the age and sex distribution of deaths according to the International Classification of Causes of Death (Short List) are given in Appendix Table IX.

#### RATE PER 1,000 DEATHS AT ALL AGES.

Year	—1 Year	—5 Years	—15 Years	—20 Years	—25 Years	—65 Years	65+ Years	All Ages
1930	...	152	75	34	21	22	374	322
1940	...	113	39	22	21	21	373	411
1949	...	73	14	13	12	21	357	510
1950	...	62	14	8	9	16	361	530
1951	...	65	12	9	6	10	347	551

Female deaths were less than half the total, 47 per cent. in 1951—a figure that has varied little since the 48·8 per cent. of 1900.

The higher age groups again showed an increased mortality, 5,362 males and 5,099 females over 55 years compared with 5,081 males and 4,919 females in 1950, or alternatively 71·2 per cent. of all male deaths and 75·1 of all female deaths occurred at ages 55 years and over.

From information on the age constitution of the population supplied by the 1951 Census it is now possible to compare the death rates in each age group and for each sex in each of the census years 1931 and 1951.

#### DEATH RATES PER 1,000 POPULATION IN EACH AGE GROUP.

Age	MALES		FEMALES	
	1931	1951	1931	1951
—1 ...	132.81	52.17	96.69	44.97
—5 ...	17.34	2.21	16.98	2.04
—10 ...	3.53	1.40	2.84	0.50
—15 ...	2.11	0.49	2.12	0.59
—20 ...	3.48	1.22	3.17	1.06
—25 ...	4.07	1.84	3.62	1.70
—35 ...	4.24	2.36	4.18	2.10
—45 ...	7.77	4.49	5.84	3.59
—55 ...	13.94	12.64	10.29	7.35
—65 ...	28.25	32.75	22.96	18.86
—75 ...	72.23	68.33	53.75	48.43
75+ ...	155.17	168.90	146.53	137.87
N.S. ...	—	—	—	—
	<u>15.38</u>	<u>14.51</u>	<u>13.19</u>	<u>11.88</u>

The most noticeable feature in this table is the remarkable reduction in child mortality in the period 1931 to 1951. Improvement has been general throughout the span of years with two notable exceptions, the under 65 and over 75 age groups for males, both of which show a considerable increase.

#### CANCER.

During 1951 the number of deaths attributed to “Malignant Neoplasms, including Neoplasms of Lymphatic and Haemopoietic Tissues” was 2,181 compared with 2,187 in 1950. The respective rates per million were 2,002 and 2,006. More than half the deaths were males, 1,155 as against 1,026 females. This male preponderance has been a feature of this disease since 1941, and has become increasingly noticeable in recent years.

#### RATIO MALES TO 100 FEMALES.

1931	...	...	97
1941	...	...	103
1951	...	...	113

Deaths for each sex increase abruptly at ages over 45 and progressively in each age group thereafter. The following table compares the death rates for each sex and in each age group in the last three Census years and shows the increasing mortality in the higher age groups :—

RATE PER MILLION.									
	—15	—25	—35	—45	—55	—65	—75	75+	All Ages
MALES—									
1921	19	31	168	475	2,068	5,109	10,627	11,251	1,105
1931	7	53	184	510	1,721	5,746	12,086	13,599	1,426
1951	88	120	350	741	2,815	6,669	11,718	19,334	2,226
FEMALES—									
1921	19	38	158	1,031	2,282	4,784	9,531	12,961	1,229
1931	13	29	140	681	2,216	2,324	8,476	11,506	1,362
1951	30	69	292	845	1,928	4,799	8,381	11,897	1,798

This increase has been most marked for certain sites of the disease, as shown in the following table which compares the average number of deaths in the two ten year periods 1932 to 1941 and 1942 to 1951 :—

Site of Lesion—	Average Number of Deaths—			
	Males		Females	
	1932/41	1942/51	1932/41	1942/51
1. Buccal Cavity and Pharynx	70	57	11	13
2. Digestive Organs and Peritoneum—				
(a) Oesophagus ... ..	41	39	20	22
(b) Stomach and small intestine, including Duodenum	190	219	161	179
(c) Rectum ... ..	68	84	41	46
(d) Liver and Biliary Passage	38	28	48	37
(e) Pancreas ... ..	26	35	20	26
(f) Peritoneum ... ..	2	3	3	4
(g) Other Digestive Organs ...	126	147	137	156
3. Respiratory Organs ... ..	96	244	38	69
4. Uterus ... ..	—	—	107	104
5. Other Female Genital Organs	—	—	33	45
6. Breast ... ..	—	1	136	155
7. Male Genito-urinary Organs	64	63	—	—
8. Skin ... ..	10	12	8	11
9. Other and Unspecified Organs	58	106	65	85
Total ... ..	789	1,037	827	955



The outstanding feature of this table is the startling rise in cancer of the respiratory organs in males. This increase has been most noticeable since 1941 and has attracted much attention in those countries where a similar increase has been observed. There has been only a slight rise in the number of female deaths from this form of cancer during the same period. The following table compares the death rates for each sex and age group for cancer of all sites and for cancer of the respiratory organs for 1932 and 1951. (The former year has been chosen instead of 1931 as the present classification of the site of the disease only came into operation in 1932.)

## DEATH RATES PER 1,000

		—35	—45	—55	—65	—75	75+	All Ages
MALES—								
All Sites	1951	0.16	0.74	2.82	6.67	11.72	19.34	2.23
	1932	0.08	0.48	1.96	4.98	10.71	15.28	1.35
Respiratory Organs only	1951	0.01	0.31	1.45	2.61	2.77	2.62	0.68
	1932	0.02	0.09	0.22	0.48	0.95	0.56	0.13
FEMALES—								
All Sites	1951	0.11	0.84	1.93	4.80	8.38	11.85	1.80
	1932	0.05	0.73	2.22	5.46	8.36	12.63	1.39
Respiratory Organs only	1951	0.02	0.06	0.19	0.49	0.73	0.99	0.17
	1932	—	0.01	0.16	0.20	0.12	0.23	0.04

The cause of this disturbing trend in the mortality has not yet been satisfactorily explained though the concensus of opinion is that atmospheric pollution plays some part in it. In a recent paper on "The Menace of Polluted Air," reproduced in the Air Purification Section of this report, the possible relationship of air pollution and the increase in lung disease is discussed.

Mortality in the next most common site of the disease, the digestive organs and peritoneum, has also increased in the same period. In 1951 there were 540 male and 475 female deaths in this group, compared with 530 and 486 respectively in 1950. Cancer of the stomach and small intestine (including duodenum) alone accounted for 236 male and 169 female deaths (233 and 204 in 1950). Cancer of the breast, which is a close second as a cause of mortality in females, was accorded 171 deaths in 1951 compared with 165 in 1950. There was one male death from cancer of this site. In the ten year comparison it will be observed that cancer of the breast and the small sub-group "Other Digestive Organs"



have closely comparable figures and show a similar increase. A comparison of the specific death rates for 1951 and 1932 for cancer of the breast, however, shows little change. There was some increase in cancer of the uterus, 98 in 1951 compared with 81 in 1950.

Details of the age and sex distribution of cancer with respect to the site of the disease are given in the table on the following page. The totals for both sexes for certain earlier years are also shown for comparison.

*Transfer Deaths, etc.*—Deaths occurring in the city and transferred to other authorities numbered 1,654, and inward transfers 716, compared with the respective figures of 1,633 and 680 for the previous years. Details are given in Appendix Table VII.

The deaths occurring in hospitals, nursing homes, and other institutions were as follows :—

	1951
General Hospitals and Welfare Institutions ... ..	4,359
Fever Hospitals and Sanatoria ... ..	701
Mental Hospitals ... ..	375
Voluntary Hospitals ... ..	92
Nursing Homes ... ..	311
Totals ... ..	<u>5,838</u>
Percentage of all deaths, 1951 ... ..	40·8
Percentage of all Deaths, 1950 ... ..	<u>41·48</u>

Cause of death are shown in Appendix Table X.

GLASGOW, 1951.—DEATHS FROM CANCER IN THE DIFFERENT SITES AS GIVEN IN THE INTERNATIONAL LIST OF  
CAUSES OF DEATH.

SITE OF LESION.	MALES.										FEMALES.										Both SEXES, 1951.	Both Sexes		
	-15 -25 -35 -45 -55 -65 -75 75+					Total.	-15 -25 -35 -45 -55 -65 -75 75+					Total.	-15 -25 -35 -45 -55 -65 -75 75+					Total.	All Ages, 1950. 1941. 1931.					
	1	1	—	—	2		2	11	18	18	51		—	—	—	—	1		4	3	2	11	62	62
Buccal Cavity and Pharynx ...	1	1	—	—	2	11	18	18	51		—	—	—	—	—	4	9	7	5	25	63	72	78	45
Digestive Organs & Peritoneum—																								
(a) Oesophagus ...	—	—	—	—	2	2	5	18	11	38	—	—	—	—	—	4	9	7	5	25	63	72	78	45
(b) Stomach and small Intestine																								
incl. Duodenum ...	1	1	2	8	36	64	88	36	236		—	—	—	—	13	10	44	38	169	405	437	365	339	
(c) Rectum ...	—	1	2	3	7	14	26	22	75		—	—	—	—	—	9	10	19	5	43	118	97	131	97
(d) Liver and Biliary Passage	—	—	—	—	3	9	8	7	27		—	—	—	2	—	5	10	19	7	43	70	54	69	111
(e) Pancreas ...	—	—	2	2	3	10	13	7	37		—	—	—	—	1	1	8	11	7	28	65	67	47	25
(f) Peritoneum ...	—	—	—	—	—	1	—	—	1		—	—	—	1	—	2	1	—	—	4	5	8	1	4
(g) Other Digestive Organs ...	—	—	5	5	9	23	41	43	126		—	—	—	1	8	23	33	50	48	163	289	281	304	266
Respiratory Organs ...	—	—	3	24	97	119	81	29	353		—	—	—	5	5	14	28	27	16	95	448	449	196	81
Uterus ...	—	—	—	—	—	—	—	—	—		—	1	5	9	22	30	22	9	98	98	81	121	108	
Other Female Genital Organs...	—	—	—	—	—	—	—	—	—		—	—	—	3	6	6	16	13	5	49	49	51	32	35
Breast ...	—	—	—	—	—	—	—	1	1		—	—	—	2	16	32	46	43	31	170	171	165	156	112
Male Genito-Urinary Organs ...	—	—	1	—	1	8	21	25	56		—	—	—	—	—	—	—	—	—	—	56	82	55	70
Skin ...	—	—	1	—	—	5	3	5	14		—	—	—	—	1	2	2	5	3	13	24	23	18	12
Other or Unspecified Organs ...	10	6	11	13	28	35	25	12	140		4	5	4	11	14	33	28	16	115	255	258	157	111	
Totals	12	9	27	57	188	304	343	215	1,155		4	6	24	70	145	274	341	192	1,026	2,181	2,187	1,185	1,516	

## SECTION III.

### MATERNITY AND CHILD WELFARE.

The year has been one of continued endeavour by the Maternity and Child Welfare Department in the field of Maternal and Child Health. The extent of the work carried out by the Department is evidence that the services are being appreciated and used by the public to a greater extent than in 1950. As an example, the primary attendances at Child Welfare centres show an increase greater than is accounted for by the slight increase in the number of births, and the medical officers and health visitors report that there is evidence of an increasing recognition by the mothers of the aims of the Child Welfare Service and its educational value. The total attendances are fewer in number because efforts are being made to dissuade mothers from bringing their infants and young children too frequently to the centres. A weekly attendance was often the habit at certain of the centres.

The effect on the services of the passing of the National Health Service Act, causing a temporary set-back, has now ceased to operate and expansion of the work is occurring. Another factor which is affecting the work of the Department and which will have an ever-increasing influence is the rehousing of so many families. This rehousing in the vast majority of cases gives undoubtedly a new impetus to family life, and parents who had become disheartened and somewhat indifferent to their responsibilities are showing new interest in child welfare and want the help and advice which are available from health visitors and at clinics. It is regrettable that the provision of clinic facilities has not synchronised with the provision of new houses. To try to overcome this difficulty it has been decided to purchase a mobile clinic for use in the new housing schemes. More health visitors are required for the fundamentally important work of health education among the families with young children. It is regrettable that owing to the general shortage of nurses, recruitment to this service has fallen off.

The infant mortality rate has risen from 44 to 46, but a detailed analysis of the causes shows that the deaths from the two major infections, respiratory infection and enteritis, have been still further reduced

but that deaths from more obscure causes have risen. The total figure is still relatively high and there is no doubt that many of the neonatal deaths, for example, should be prevented. Their prevention is closely associated with the Ante-Natal and Midwifery Services. There is no doubt that the tripartite division of responsibility for the expectant mother now operative under the National Health Service Act is retrograde and far from being in the best interests of the mother. If it were not for special co-ordination arrangements made between the Local Health Authority and the Regional Hospital Board, the position would be even more unsatisfactory. The lack of a sufficiency of maternity beds for the present demand for hospital accommodation has thrown a great strain on the service, and it has been difficult to ensure that all cases which require hospital confinement either on medical or social grounds do secure admission. Domiciliary confinements are still carried out in unsatisfactory home conditions. Much work devolves on the Principal Medical Officer for Maternity and Child Welfare in the administration and co-ordination of the Maternity Services for the city principally with regard to the admission of patients to hospital for confinement.

The attendances at the ante-natal clinics have been well maintained and it is hoped that it will not be long before the consultative sessions at the various centres will be instituted. There has been still further development of the educational work among the mothers and the special classes have been well attended. During the year it was possible to begin post-natal supervision at three of the centres. The numbers of mothers attending were disappointingly small. Much education is necessary to ensure that the mothers appreciate the necessity of these post-natal examinations.

The Domiciliary Midwifery Department had a very busy year. The number of confinements attended by the Local Health Authority midwives rose again from 5,115 to 5,217, and the midwives employed by the Glasgow District Nursing Association attended 1,721 confinements. During the year there was a marked decrease in the number of district cases dealt with by the Royal Maternity and Women's Hospital. In the years before the passing of the National Health Service Act the district practice of the hospital numbered about 4,000 confinements per annum. During 1951 the number was 791. The changes which have occurred in domiciliary midwifery practice raise acutely the problem of the training of pupil midwives. The training of all the pupils in the various maternity units throughout the city has only been possible by the

co-operation of the Local Health Authority, and except for a few pupils who still receive their training in the district practice of the Royal Maternity Hospital, all the pupils from the various maternity units are trained in domiciliary practice by the Local Health Authority midwives. The Glasgow District Nursing Association co-operate in giving training to pupil midwives from various maternity hospitals outwith Glasgow in the Western Region where domiciliary cases are too few or non-existent. The problem of the training of pupil midwives in domiciliary practice is a very difficult one and requires constant consideration.

As in former years, much health education work was carried out by the child welfare medical officers and the health visitors. Talks were given to a large number of meetings of Women's Guilds and similar organisations, and the staff co-operated with the Girls' Training Corps, Girl Guides, and the British Red Cross Association in schemes of training for child care.

#### INFANT MORTALITY.

The record low mortality of the previous year was not maintained in 1951 and (after correction for transfers) the deaths of children under 1 year of age numbered 922 compared with 879 in 1950. This increase in the rate, from 44 to 46 per 1,000 births, though small, is the second interruption of the steady downward trend in the post-war years, as the following table shows :—

1920-24	...	...	108	1946	...	...	...	67
1925-29	...	...	105	1947	...	...	...	77
1930-34	...	...	102	1948	...	...	...	56
1935-39	...	...	93	1949	...	...	...	49
1940-44	...	...	95	1950	...	...	...	44
1945	...	...	...	68	1951	...	...	46

This is in contrast to the Scottish rate which has fallen from 41 in 1949 to 39 in 1950 and 37 in 1951. For both Edinburgh and Aberdeen the rate was 27. The male rate rose slightly from 48 to 49, but most of the increase has been contributed by the females, with a rate of 43 compared with 39 in 1950.

*Infant Mortality in Municipal Wards.*—The deaths under 1 year, and the infant mortality rates for 1951 and 1950 are shown for each ward of the City in Appendix Table XI.



The highest rate was 78 in Cowlairst, followed by 67 in Exchange (which has the third highest illegitimacy rate). Other high rates were Kingston (59), Pollokshaws (57), Dennistoun (56), and 54 in both Maryhill and Gorbals. Cathcart had the remarkably low rate of 13, which is only a third of the rate for 1950. Other wards with low rates were Partick E. (24), Camphill (27), and North Kelvin (28).

Details of the causes of death for each sex and each quarter of the first year of life are given in Appendix Table XII. The information there given is summarised in the following statement :—

MALES—				Rate per 1,000 Births.						
<i>Causes of Death</i>				1941-45	1946	1947	1948	1949	1950	1951
I.	Immaturity	...	...	42·3	39·1	35·3	33·4	27·6	29·3	30·6
II.	Diseases of Respiratory System	...	...	17·6	13·9	14·4	7·8	9·3	7·0	6·0
III.	Diseases of Digestive System	...	...	24·2	14·3	26·7	14·1	9·9	4·6	4·0
IV.	Diseases of Nervous System	...	...	5·4	4·1	2·5	3·1	2·3	0·7	1·4
V.	Tuberculous Diseases	...		1·3	1·2	1·3	0·8	0·5	1·1	0·3
VI.	Infectious Diseases	...		4·1	1·5	2·5	0·4	0·9	1·1	1·4
VII and VIII.	All other causes			4·9	2·3	4·2	3·7	4·0	4·5	5·4
	All causes	...		99·8	76·4	86·9	63·3	54·5	48·3	49·1

FEMALES—				Rate per 1,000 Births.						
<i>Causes of Death</i>				1941-45	1946	1947	1948	1949	1950	1951
I.	Immaturity	...	...	34·5	28·9	30·1	26·1	21·9	24·1	26·0
II.	Diseases of Respiratory System	...	...	14·0	9·5	9·4	6·4	7·0	5·8	4·8
III.	Diseases of Digestive System	...	...	16·1	10·5	18·2	8·8	6·3	3·9	2·7
IV.	Diseases of Nervous System	...	...	4·5	2·6	2·2	1·3	3·1	0·1	1·0
V.	Tuberculous Diseases	...		1·2	1·4	0·9	0·9	0·6	0·5	0·3
VI.	Infectious Diseases	...		4·2	1·5	2·9	1·0	0·9	1·0	1·2
VII and VIII.	All other causes			3·3	3·5	3·0	2·9	4·0	3·5	6·5
	All causes			77·8	57·9	66·7	47·4	43·8	38·9	42·5
Ratio—Males to 100 Females				130	131	130	134	123	124	126



There has again been a gratifying decrease in certain groups of causes, particularly respiratory and digestive diseases, the rates for which have fallen steadily since 1948. 46 of the 64 male and 42 of the 52 female deaths in the respiratory group were due to pneumonia. 31 of the 39 male and 24 of the 26 female deaths from digestive disease were due to enteritis. It will be noted that deaths from pneumonia are now considerably greater in number than those from enteritis.

It is gratifying to note that there are fewer deaths from tuberculosis—3 males and 3 females compared with 12 and 5 respectively in 1950, and of these, only one was due to the meningeal form.

Whooping cough is still the major infectious disease causing death in infants. Of the 26 deaths due to infectious disease, 17 were due to whooping-cough. The other deaths were 3 from measles, 5 from cerebrospinal fever, and 1 from chickenpox.

Mortality from diseases of the nervous system rose from 0·7 to 1·4 in males and from 0·1 to 1·0 in females. The individual deaths making up this rate were various in type and there is no one definite cause apparently responsible for this increase.

It is somewhat disturbing to find an increase in the group of deaths from "all other causes." This group increased from 4·5 to 5·4 in males and from 3·5 to 6·5 in females. Almost all the deaths in this group were certified as either "convulsions" or "natural causes," but the certification of many infant deaths is not at all satisfactory and accordingly it is not possible to assess the significance of the rise in this miscellaneous group.

The principal cause of death in the first four weeks of life is still immaturity. This cause is responsible for more than half the deaths of infants. In 1951 the rate was 30·6 for males and 26·0 for females compared with 29·3 and 24·1 respectively for 1950.

*Neonatal Mortality.*—The neonatal rate per 1,000 births was 29 for males, 23 for females and 26 for both sexes together. The rate for Scotland, 22, was the lowest yet recorded.

#### ANALYSIS OF INFANT DEATHS.

The total number of deaths was 1,061, but of these, 139 were children whose homes were beyond the city boundary, so that the actual total was 922. No information was available, for one reason or another,

in 39 cases, so that 883 fell to be investigated. These were grouped according to age with the following result :—1 week, 411 ; 2 weeks, 67 ; 3 weeks, 21 ; 4 weeks, 99 ; 2 months, 83 ; 3 months, 60 ; 4 months, 38 ; 5 months, 27 ; 6 months, 19 ; 7 months, 15 ; 8 months, 10 ; 9 months, 15 ; 10 months, 12 ; 11 months, 6 ; total 883. Males, 491 ; females, 392.

Ante-natal care in the neonatal deaths was as follows :—

General Practitioner	...	...	...	...	277
Corporation Clinic	...	...	...	...	165
Hospital Clinic	...	...	...	...	136
No Ante-Natal Care	...	...	...	...	20
					<u>598</u>

A further analysis was made of the deaths occurring in the first week of life—411 in all :—1 day, 261 ; 2 days, 50 ; 3 day, 35 ; 4 days 18 ; 5 days, 19 ; 6 days, 19 ; 7 days, 9.

Ante-natal care in this last group was as follows :—

General Practitioner	...	...	...	...	197
Corporation Clinic	...	...	...	...	110
Hospital Clinic	...	...	...	...	93
No Ante-Natal Care	...	...	...	...	11
					<u>411</u>

The attendance at birth of these 411 children was as follows :—

Attendance at Birth					Domiciliary	Institution.
General Practitioner	...	...	...	...	59	—
General Practitioner and Queen's Nurse	...	...	...	...	6	—
General Practitioner and Midwife	...	...	...	...	16	—
Midwife alone	...	...	...	...	19	—
Outdoor Maternity Staff	...	...	...	...	11	—
Nobody in Attendance	...	...	...	...	6	—
Institution	...	...	...	...	—	294
					<u>117</u>	<u>294</u>
					<u>411</u>	

An investigation of the feeding in the total deaths again showed a very low percentage of breast feeding.

Breast Feeding	...	...	...	86 = 9.7 per cent.
Artificial Feeding	...	...	...	402 = 45.5 per cent.
Feeding not established	...	...	...	395 = 44.8 per cent.
				<u>883</u>

An analysis of the feeding in the 598 neonatal deaths gave the following result :—

Breast Feeding ... ..	39 = 6.5 per cent.
Artificial Feeding ... ..	164 = 27.4 per cent.
Feeding not established ... ..	395 = 66.1 per cent.
	<hr/>
	598
	<hr/>

An analysis of the cause of death was made into the total number of infant deaths. The commonest causes were :—

Prematurity (Unqualified) ... ..	147 = 16.6 per cent.
Prematurity associated with Some Other Cause ... ..	88 = 9.9 per cent.
Congenital Abnormality ... ..	125 = 14.1 per cent.
Pneumonia ... ..	122 = 13.8 per cent.
Asphyxia ... ..	64 = 7.2 per cent.
Gastro-enteritis ... ..	61 = 6.9 per cent.
Cerebral Haemorrhage ... ..	51 = 5.7 per cent.
Atelectasis ... ..	42 = 4.7 per cent.
Convulsions ... ..	39 = 4.4 per cent.

The following is an analysis of 411 children who died in the first week of life in relation to attendance at confinement :—

Cause of Death	Domiciliary	Institution
Prematurity ... ..	41	93
Congenital Abnormality ... ..	17	44
Prematurity and Asphyxia ... ..	—	11
Prematurity and Atelectasis ... ..	10	24
Prematurity and Cerebral Haemorrhage	—	16
Prematurity and Pneumonia ... ..	—	11
Asphyxia ... ..	14	8
Cerebral Haemorrhage ... ..	7	34
Atelectasis ... ..	11	23
Haemolytic Disease of Newborn ... ..	1	5
Rhesus Negative ... ..	3	10
Congenital Debility ... ..	4	—
Abscess of Lung ... ..	1	—
Convulsions ... ..	1	—
Pneumonia ... ..	4	10
Natural Causes ... ..	2	—
Bronchitis ... ..	1	—
Congenital Syphilis ... ..	—	1
Cerebral Oedema ... ..	—	1
Necrosis of Liver ... ..	—	1
Sclerema ... ..	—	1
Septicaemia ... ..	—	1
	<hr/>	<hr/>
	117	294
	<hr/>	<hr/>
	411	

*Illegitimate Mortality.*—During 1951 there was an unfortunate rise in the mortality among illegitimate infants. There were 61 infant deaths among the 1,060 illegitimate births, equivalent to an infant mortality rate of 57·5. The rate for 1950 was 43·7. This may be compared with 859 deaths among 19,028 legitimate births and a rate of 45·1. A detailed analysis of the 61 deaths shows that the rise was mainly due to deaths from prematurity.

*Stillbirths.*—The number of stillbirths registered in the City during the year was 646 compared with 682 in 1950, and 716 in 1949. There were 87 outward and 21 inward transfers, so that the net total for the city was 580 against 596 and 639 respectively. The rate per 1,000 live and still births 28, is less than the 1950 rate of 29. From information obtained under the Notification of Births Act, it appears that 19 per 1,000 of all births attended at home by doctors were stillbirths, and of those medically attended in institutions and nursing homes, 36 per 1,000. Among non-medically attended births the corresponding rate was 12. The rates have varied little within the past four or five years.

In Appendix Table XI will be found the ward distribution of these stillbirths and a comparison of the ward rates for 1951 and 1950. The highest rate, 40, was shared by three wards—Gorbals, Maryhill and Yoker—followed closely by Whiteinch (39), Provan (38), and Dalmar-nock and Ruchill (each with 37). The lowest rate was Partick (E.) with 12, Camphill, 15, and Woodside and Townhead with 20 each.

In a more detailed investigation of the 580 births no information was available in 21 cases, so that 559 fell to be investigated. Home confinement took place in 127 cases and the remaining 423 occurred in institutions. Males, 261 ; females, 298 ; total 559.

The ante-natal care in the 127 home cases was as follows :—

General Practitioner	...	...	...	...	88
Corporation Clinic	...	...	...	...	31
Hospital Clinic	...	...	...	...	6
No Ante-Natal Care	...	...	...	...	2
					<hr/>
					127
					<hr/>

The ante-natal care in the second group was as follows :—

General Practitioner	...	...	...	...	159
Corporation Clinic	...	...	...	...	130
Hospital Clinic	...	...	...	...	136
No Ante-Natal Care	...	...	...	...	7
					<hr/>
					432
					<hr/>

The following were the causes of still birth in 127 home cases and 432 institution cases :—

	Home	Institution.
Congenital Abnormality ... ..	28	84
Difficult Labour ... ..	17	27
Prematurity ... ..	16	12
Conditions affecting Cord ... ..	13	30
Macerated Foetus ... ..	10	26
Asphyxia ... ..	10	17
Conditions affecting Placenta ... ..	7	15
Pre-Eclamptic Toxaemia ... ..	6	66
Cause Unknown ... ..	4	32
Haemorrhage in Mother ... ..	3	71
Maternal Illness ... ..	3	7
Atelectasis ... ..	4	5
Post-Maturity ... ..	2	1
Hydramnios ... ..	1	4
Rhesus Negative ... ..	1	16
Cerebral Haemorrhage ... ..	2	17
Ruptured Uterus ... ..	—	1
Hydrops (Rhesus Positive) ... ..	—	1
	<u>127</u>	<u>432</u>

#### MORTALITY AMONG TODDLERS.

The following table shows the reduction in mortality among children in the age group one to five years. As is not altogether unexpected, most of the deaths come under the heading of Road Traffic Accidents and other violent causes, this group alone accounting for 14 male and 9 female deaths. Tuberculosis in the meningeal form was responsible for 16 deaths in males and 16 in females. Pulmonary tuberculosis claimed 6 males and 8 females. There were 14 male and 6 female deaths from pneumonia, normally one of the major causes.

Year	Infant Mortality Rate per 1,000 Births	Deaths 1-5 Years : Actual Number	Rate per 1,000 Population at Ages 1-5 Years
1900	153	2,754	39.2
1911	139	1,862	26.7
1921	106	1,494	19.2
1931	105	1,341	17.2
1938	87	753	9.8
1943	82	394	5.3
1946	67	276	3.6
1947	77	296	3.7
1948	56	219	2.7
1949	49	203	2.4
1950	44	191	2.2
1951	46	171	2.1

## CHILD WELFARE SCHEME.

There are 22 centres including the one at the Royal Hospital for Sick Children. The total number of weekly sessions is 116, which includes 43 ante-natal clinics, 68 child welfare sessions, and 5 for ultra-violet ray treatment.

In addition 6 ante-natal and 3 child welfare clinics still continue to be held at the Royal Maternity Hospital.

The time-table of the clinics as now organised is given—

## WELFARE CENTRES FOR EXPECTANT AND NURSING MOTHERS AND CHILDREN UNDER FIVE YEARS OF AGE

Address of Centre.			Clinics for Children and Nursing Mothers.	Clinics for Expectant Mothers.
20 COCHRANE STREET	...		Thursday, 9 a.m.	
33 RICHARD STREET	...		Monday, 1.30 p.m. Wednesday, 9 a.m. Thursday, 9 a.m. Friday, 9 a.m.	Monday, 9 a.m. Tuesday, 1.30 p.m.
12 SANDY ROAD	...	...	Monday, 9 a.m. Thursday, 1.30 p.m. Friday, 1.30 p.m.	Monday, 1.30 p.m. Thursday, 9 a.m.
18 PLEAN STREET	...	...	Tuesday, 9 a.m. Wednesday, 9 a.m.	Wednesday, 1.30 p.m.
BLACKWOOD STREET	...		Tuesday, 1.30 p.m.	Friday, 9 a.m.
ROYAL HOSPITAL FOR SICK CHILDREN			Tuesday, 9 a.m. Friday, 1.30 p.m.	
15 GLENBARR STREET	...		Monday, 9 a.m. Tuesday, 9 a.m. Wednesday, 9 a.m. Friday, 9 a.m. Friday, 1.30 p.m.	Monday, 1.30 p.m. Thursday, 9 a.m.
194 FERNBANK STREET	...		Monday, 1.30 p.m. Tuesday, 9 a.m. Thursday, 9 a.m.	Monday, 9 a.m. Wednesday, 1.30 p.m.
101 DENMARK STREET	...		Monday, 1.30 p.m. Tuesday, 1.30 p.m. Friday, 1.30 p.m.	Thursday, 1.30 p.m. Friday, 9 a.m.
614 DOBBIE'S LOAN	...		Tuesday, 9 a.m. Wednesday, 9 a.m. Thursday, 9 a.m. Thursday, 1.30 p.m. Friday, 1.30 p.m.	Monday, 1.30 p.m. Tuesday, 1.30 p.m. Friday, 9 a.m.
60 AVENUEPARK STREET	...		Monday, 1.30 p.m. Wednesday, 9 a.m. Friday, 9 a.m.	Tuesday, 9 a.m. Thursday, 1.30 p.m.



WELFARE CENTRES FOR EXPECTANT AND NURSING MOTHERS AND  
CHILDREN UNDER FIVE YEARS OF AGE.

Address of Centre.	Clinics for Children and Nursing Mothers.	Clinics for Expectant Mothers.
106 ORR STREET ... ..		Monday, 9 a.m. Tuesday, 9 a.m. Wednesday, 9 a.m. Thursday, 1.30 p.m. Friday, 9 a.m.
10 REDAN STREET ... ..	Monday, 1.30 p.m. Tuesday, 1.30 p.m. Wednesday, 1.30 p.m. Thursday, 9 a.m. Friday, 1.30 p.m.	
150 WELLSHOT ROAD ... ..	Monday, 1.30 p.m. Tuesday, 9 a.m. Tuesday, 1.30 p.m. Wednesday, 9 a.m. Wednesday, 1.30 p.m. Friday, 1.30 p.m.	Monday, 9 a.m. Tuesday, 1.30 p.m. Thursday, 1.30 p.m. Friday, 9 a.m.
26 FLORENCE STREET ... ..	Monday, 9 a.m. Monday, 1.30 p.m. Tuesday, 9 a.m. Tuesday, 1.30 p.m. Thursday, 1.30 p.m. Friday, 9 a.m.	Monday, 9 a.m. Tuesday, 1.30 p.m. Wednesday, 1.30 p.m. Thursday, 1.30 p.m. Friday, 1.30 p.m.
FAULDHUSE STREET ... ..	Thursday, 9 a.m.	Wednesday, 9 a.m.
39 BENGAL STREET ... ..	Tuesday, 1.30 p.m. Wednesday, 1.30 p.m.	Friday, 1.30 p.m. Wednesday, 9 a.m.
46 BALVICAR STREET ... ..	Monday, 9 a.m. Monday, 1.30 p.m. Thursday, 9 a.m.	Thursday, 1.30 p.m.
132 WEIR STREET ... ..	Tuesday, 9 a.m. Thursday, 9 a.m. Thursday, 1.30 p.m.	
2 SUMMERTOWN ROAD ... ..	Tuesday, 9 a.m. Wednesday, 1.30 p.m. Friday, 9 a.m.	Monday, 9 a.m. Thursday, 9 a.m. Thursday, 1.30 p.m.
20 ARKLET ROAD ... ..	Monday, 1.30 p.m. Wednesday, 1.30 p.m. Thursday, 1.30 p.m. Friday, 1.30 p.m.	Monday, 9 a.m. Tuesday, 9 a.m. Tuesday, 1.30 p.m.
CRAIGMUIR ROAD ... ..	Wednesday, 1.30 p.m. Thursday, 9 a.m. Friday, 1.30 p.m.	Monday, 1.30 p.m. Wednesday, 9 a.m.
MATERNITY HOSPITAL ... ..	Monday,* 9 a.m. Wednesday,* 9 a.m. Friday,* 9 a.m.	Monday, 1.30 p.m. Tuesday, 1.30 p.m. Wednesday, 1.30 p.m. Thursday, 1.30 p.m. Friday, 1.30 p.m. Saturday, 9.30 a.m.

\* Clinics for Infants under One year of age.

### INFANT CONSULTATIONS

The number of sessions remained unchanged at 3,427. The slight increase in the birthrate was reflected in the rise in primary attendances but subsequent attendances showed some falling off, from 103,406 in 1950, to 101,393.

The total number of primary attendances of all children was 9,608 and subsequent attendances 101,393 compared with the corresponding figures of 9,544 and 103,406 in 1950. Primary attendances of children under one year of age were higher, 8,846 against 8,688 in 1950, while subsequent attendances, 80,213 were fewer by 601, an increase of 1·8 and a reduction of 0·7 per cent, respectively.

The following table gives the attendances at each consultation centre during 1951, with the corresponding total figures for the previous year :—

#### ATTENDANCES AT INFANT CONSULTATIONS, 1951.

	No. of Con- sulta- tions held.	Children—1 year. No. of Attendances.		Children+1 year. No. of Attendances.		Total No. of Attendances.		1950—Total No. of Attendances.	
		Prim.	Sub.	Prim.	Sub.	Prim.	Sub.	Prim.	Sub.
<i>Central—</i>									
Cochrane Street	52	76	518	25	247	101	765	86	665
Richard Street	203	414	3,538	86	1,277	500	4,815	539	4,794
Partick ...	150	367	3,153	27	603	394	3,756	431	3,610
Blawarthill ...	102	309	2,279	15	375	324	2,654	359	2,942
Royal Hospital for Sick Child- ren ...	100	123	1,152	5	298	128	1,450	111	1,647
Netherton ...	50	170	1,741	19	253	189	1,994	250	1,733
<i>North—</i>									
Provan ...	252	503	3,622	71	993	574	4,615	600	4,871
Springburn ...	149	400	4,330	8	903	408	5,233	379	4,714
Denmark Street	147	408	3,762	14	492	422	4,254	415	5,177
Cowcaddens ...	256	538	5,190	62	2,055	600	7,245	532	7,288
Maryhill ...	151	478	4,433	42	1,028	520	5,461	516	5,139
<i>East—</i>									
Redan Street	251	1,089	9,050	70	2,278	1,159	11,328	1,218	10,944
Shettleston ...	301	788	7,705	60	2,171	848	9,876	866	10,601
<i>South-East—</i>									
Gorbals ...	299	829	6,875	104	1,635	933	8,510	914	9,775
Pollokshaws ...	102	412	2,799	51	718	463	3,517	314	3,398
Balvicar Street	147	291	3,318	19	1,109	310	4,427	269	4,311
Oatlands ...	52	221	1,819	8	397	229	2,216	201	2,467
<i>South-West—</i>									
Weir Street ...	154	256	2,354	9	615	265	2,969	264	3,383
Govan ...	154	370	3,244	34	938	404	4,182	390	3,773
Elder Park ...	201	561	5,901	11	1,963	572	7,864	607	7,751
Penilee ...	154	243	3,430	22	832	265	4,262	283	4,423
	3,427	8,846	80,213	762	21,180	9,608	101,393	9,544	103,406

Infant consultations are also held in the Maternity Hospital and in 1951 there were 2,644 attendances compared with 2,743 in 1950.

"*Health of Mother and Child.*"—This booklet continued in demand at the centres and 4,023 copies were sold during the year. Large numbers continued to be supplied to other Local Authorities in Scotland and in England. Requests for copies continue to be received from all parts of the world.

*Ante-Natal Consultations.*—Sessions at ante-natal clinics numbered 2,169 compared with 2,260 for the preceding year. The total attendances were 55,103 compared with 60,192 in 1950 ; primary attendances were 7,399, or 679 less than the previous year (1950) ; subsequent attendances numbered 47,704, a decrease of 4,410. Consultations and attendances at each of the Centres are shown in the following table :—

ATTENDANCES AT ANTE-NATAL CLINICS, 1951.

	No. of Clinical Sessions.	Number of Attendances.		
		Primary.	Subsequent.	Total.
Richard Street ...	98	333	1,912	2,245
Partick ...	99	294	1,967	2,261
Blawarthill ...	52	200	1,330	1,530
Netherton ...	52	96	626	722
Provan ...	141	335	2,177	2,512
Springburn ...	100	289	1,764	2,053
Denmark Street ...	104	310	1,703	2,013
Cowcaddens ...	149	293	2,103	2,396
Maryhill ...	102	385	2,660	3,045
Orr Street ...	254	906	6,859	7,765
Shettleston ...	202	815	4,896	5,711
Gorbals ...	252	851	5,111	5,962
Oatlands ...	52	191	1,064	1,255
Pollokshaws ...	61	353	1,884	2,237
Balvicar Street ...	52	101	780	881
Govan ...	152	741	4,060	4,801
Elderpark ...	148	685	4,941	5,626
Penilee ...	99	221	1,867	2,088
	<u>2,169</u>	<u>7,399</u>	<u>47,704</u>	<u>55,103</u>

The total number of cases attending the ante-natal dispensary of the Maternity Hospital for the first time was 3,916 compared with 3,244 in 1950, and the total attendance, 22,356 as against 19,600. Of the 2,823 cases treated to a termination in delivery, 275 were treated in their own homes. Cases treated in the ante-natal wards numbered 1,688.

## ATTENDANCES AT POST-NATAL CLINICS, 1951.

	No. of Consultations	Primary	Subsequent.	Total.
Provan ...	69	301	403	704
Orr Street ...	9	16	17	33
Shettleston ...	8	15	5	29
	<u>86</u>	<u>332</u>	<u>425</u>	<u>757</u>

## MATERNAL DEATHS.

In attendance at the ante-natal clinics were 7,555 patients whose pregnancy (excluding abortions) terminated in 1951. Among these, 6 deaths occurred, giving a death rate of 0·79 per thousand births compared with 1·3 in 1950. Causes of death among these 6 women were as follows :—

Other haemorrhage of pregnancy	...	...	...	...	1
Delivery complicated by retained placenta	...	...	...	...	1
Delivery complicated by disproportion or malposition of foetus	...	...	...	...	1
Chronic rheumatic heart disease	...	...	...	...	2
Arteriosclerotic and degenerative heart disease	...	...	...	...	1

Excluding the three deaths which had little association with the puerperal state, the maternal death rate of mothers attending the clinics was 0·39 compared with 0·97 for the *city* as a whole.

The following table, based on figures supplied by the Registrar General, compares the rates from each cause for the *whole city* with those of previous years.

## STATEMENT SHOWING MATERNAL DEATHS AND RATES PER 1,000 BIRTHS IN GLASGOW AND SCOTLAND IN THE YEARS 1947-1951.

	Deaths.					Rate per 1,000 (live and still) Births.				
	1947	1948	1949	1950	1951	1947	1948	1949	1950	1951
Accidents of Pregnancy ...	18	21	11	5	3	0·67	0·91	0·51	0·24	0·15
Puerperal Haemorrhage ...	21	6	6	1	7	0·79	0·26	0·28	0·05	0·34
Puerperal Septicaemia, including Post-abortive Sepsis ...	9	4	6	4	5	0·34	0·17	0·28	0·19	0·24
Toxaemia of Pregnancy, Albuminuria Convulsions	12	2	7	5	1	0·45	0·09	0·32	0·24	0·05
Other Puerperal Diseases ...	2	3	4	6	4	0·07	0·13	0·19	0·29	0·19
Totals— Glasgow ...	<u>62</u>	<u>36</u>	<u>34</u>	<u>21</u>	<u>20</u>	<u>2·32</u>	<u>1·56</u>	<u>1·58</u>	<u>1·02</u>	<u>0·97</u>
Scotland ...	<u>235</u>	<u>160</u>	<u>124</u>	<u>106</u>	<u>98</u>	<u>2·0</u>	<u>1·5</u>	<u>1·3</u>	<u>1·1</u>	<u>1·1</u>

## SPECIAL INVESTIGATIONS.

In 1951 the Maternity and Child Welfare Department was asked by the Department of Health for Scotland to co-operate in the national enquiry into the possible effect of virus infection during pregnancy on the incidence of congenital defects in infants.

The cases selected for investigation are those patients attending ante-natal clinics who have a history of virus infection during pregnancy, and a selected series of control cases. The number under investigation at the end of 1951 was 4 cases and 72 controls. Supervision of these will be continued until the child reaches the age of 2 years. The investigation will continue until 1953.

At two of the Child Welfare Clinics a special investigation into the morbidity of infants in their first year of life is being undertaken in co-operation with the gastro-enteritis unit at Knightswood Fever Hospital.

The medical officers at two of the Child Welfare Clinics are co-operating with the Department of Child Health at the University in an investigation into the physical development of children according to their birth weight. The investigation, along with other investigations with regard to the development of children, is being carried on under the auspices of the Medical Research Council.

## DENTAL TREATMENT OF EXPECTANT AND NURSING MOTHERS.

Under the National Health Service (Scotland) Act, 1947, treatment is provided on application, free of cost and irrespective of income. A slight increase in the numbers seeking dental attention was noted during 1951, as shown in the following table :—

		1951	1950	1949	1948
Total Attendances ...	...	3,062	2,988	4,706	4,899
First Attendances ...	...	673	645	871	915
Extractions ...	...	3,722	3,321	5,276	7,045
Dentures Completed ...	...	490	487	920	1,109

In addition, 209 fillings were inserted, " scaling " was done for 111 patients, and 762 patients had a variety of other operations.

Several lectures were given at the request of Mothers' Clubs in various areas of the city. These dealt with care of the teeth of the young child and of the unborn, and emphasised the role of diet in this connection.



## ULTRA-VIOLET RAY CLINICS.

No alteration has taken place in the arrangements for light treatment of children suffering from rickets, malnutrition, etc.

The installation and the results of treatment have been fully dealt with in previous reports, so that only the records of numbers treated are here given in respect of 1951 :—

## RECORD OF ATTENDANCES AND CONSULTATIONS DURING 1951.

	Number of Clinics held.	Children -1 year. Number of Attendances.		Children +1 year. Number of Attendances.		Mothers. Number of Attendances.		Total Number of Attendances.	
		Prim.	Sub.	Prim.	Sub.	Prim.	Sub.	Prim.	Sub.
Provan ...	99	2	99	169	4,263	1	31	172	4,393
Govan ...	149	37	165	172	4,270	2	32	211	4,467
	248	39	264	341	8,533	3	63	383	8,860

## HEALTH VISITORS' TRAINING COURSE, 1951-52.

The number of students trained during the session was 36 compared with 27 in 1950-51. This number, though an increase on last year, is still well below the maximum number of students which could be trained in the Department. The proportion of " assisted " students is also lower than is desirable for the work of the Department and recruitment to the health visiting service. This general decrease is one that is affecting all parts of the country and there are everywhere vacancies for student health visitors.

## HEALTH VISITING SERVICE.

The number of health visitors, including administrative staff, remained unchanged at 88 during 1951. This number is insufficient to carry out adequately the responsible duties of health visitors in the Maternity and Child Welfare Service. In present circumstances, with the general shortages of nurses, it is difficult to recruit additional staff.



## INFANT VISITATION.

Under the scheme of infant visitation every birth is visited if the notification does not state that a medical practitioner has been in attendance, and the following table shows the record of those visited, together with certain information obtained :—

	1951	1950	1949
Inquiry cards returned ...	20,830	20,860	20,993
Full information obtained	20,449	20,435	20,414
Others ... ..	381	425	579
<i>Of those for whom full information was obtained :—</i>			
Legitimate ... ..	19,668	19,720	19,862
Illegitimate ... ..	669	706	756
Born at full term ... ..	18,795	18,892	19,323
Premature births ... ..	1,542	1,534	1,295
<i>Nature of Feeding at First Visit :—</i>			
Breast ... ..	9,391	10,048	10,559
Artificial ... ..	9,068	8,419	8,122
Breast and Artificial ...	828	910	896
Still-born ... ..	568	586	589
Dead at First Visit ...	482	463	452

## VISITATION BY NURSES.

Altogether the health visitors made 243,296 home visits during the year, compared with 233,089 during the preceding year. Of these totals the respective numbers for infants under one year of age were 104,084 and 96,167. First visits numbered 20,375. In addition 67,094 visits were made to houses in respect of toddlers, while 15,897 other toddlers were seen during the course of routine visitation of infants. Other visits were made for special enquiries, etc., as shown in the following table :—

### VISITS MADE BY NURSES.

	1951.	1950.
Infants under one year—Primary visits ...	20,375	20,458
Infants under one year—Subsequent visits ...	83,709	75,709
	104,084	96,167
Children one to five years ... ..	67,094	66,151
Children seen while visiting infants ... ..	15,897	14,502
Ophthalmia Neonatorum ... ..	1,394	1,119
Puerperal Fever ... ..	457	431
Maternal Deaths Enquiries ... ..	61	60
Infants Death ... ..	386	382
Ante-natal Visits ... ..	3,356	3,420
Veneral Diseases ... ..	70	161
Light Treatment ... ..	449	472
Pneumonia ... ..	2	—
Other Visits ... ..	983	1,383
Houses Shut ... ..	36,114	34,986
Final Visits ... ..	12,949	13,855
	243,296	233,089

## HOME NURSING SERVICE.

On 31st December, 1951, the Nursing Staff numbered 121. In this figure are included the Senior Superintendent of Home Nursing, 5 Superintendents of Homes, 3 Assistant Superintendents, 44 Queen's Nurses on General Nursing work, 21 Queen's Nurses on Maternity work, 20 State Registered Nurses in training for the Queen's Roll, 15 State Registered Nurses employed Full-time on a temporary basis, 10 State Registered Nurses doing Part-time nursing, 1 Queen's Nurse undertaking Part II Midwifery training on the district, and 1 Queen's Nurse undertaking Part I training in Hospital.

The majority of the nurses are housed in Nurses' Homes, but approximately 28 including 4 male nurses live at home.

The work has been heavy during the year and although there has been a slight increase of staff the number of visits has increased by over 13,000. These are chiefly medical nursing visits, and to a great extent are to aged persons suffering from acute and chronic illnesses.

During the year 23 Students completed 6 months' District Training and were successful in the Queen's Roll Examination. Sixteen of these are now employed on the staff of this Association and the remainder on districts in various parts of Scotland.

Before a Student can be accepted for training she must be a Registered General Nurse—the majority of the students hold additional Certificates. During the training period she attends lectures and tutorial classes; pays visits of observation to clinics and other places of interest, and receives practical instruction, all of which is applicable to the work which she is to undertake in the future. For the remainder of the time the student is at work on the district doing General nursing work.

This Association is recognised by the Central Midwives Board (Scotland) as a Training Centre for the Part II Midwifery Examination, and training is given to those students who do not possess the Certificate and are desirous of having it.

Under the Scheme of co-operation with the Western Regional Hospital Board, 12 Pupil Midwives from Cresswell Maternity Hospital, Dumfries, and 27 from the County Maternity Hospital, Bellshill, were seconded to take their district cases with the Staff of the Association, and a number of Pupil Midwives from the Glasgow Royal Maternity Hospital have also taken district cases with the Staff.

Cases on Books at 1st January, 1951	...	...	...	...	1,618
Number of New Cases added	...	...	...	...	10,104
Number of Cases dismissed	...	...	...	...	10,028
Number of Cases remaining at 31/12/51	...	...	...	...	1,694
<i>Analysis of—</i>					<i>Cases.</i>
Medical	...	...	...	6,937	...
Surgical	...	...	...	1,302	...
Gynaecological	...	...	144	...	...
Maternity	...	...	1,721	Puerperia	...
				Ante-natal	...
<i>Dismissed—</i>					<i>Visits.</i>
Convalescent	...	...	...	...	6,628
Hospital	...	...	...	...	1,122
Died	...	...	...	...	1,951
Removed	...	...	...	...	327
No. of Operations attended	...	...	...	...	279
Total Number of Hours on duty	...	...	...	...	213,217
Total Number of Visits paid	...	...	...	...	293,526
Number of Supervisory Visits paid with Students with Administrative Staff	...	...	...	...	487
Number of Inspections of Nurses	...	...	...	...	117

## NURSING HOMES REGISTRATION (SCOTLAND) ACT, 1938.

Two applications were made for registration during the year. One, which was in respect of premises coming under new management, was granted. The other is still in process of being adapted to comply with official requirements.

Two certificates were withdrawn, as a result of the death of the owner of the premises in one instance, and in the other a temporary suspension of a registration pending the transfer of the Nursing Home to more modern premises.

Three homes were granted exemption under the Act.

The position of the nursing homes at 31st December, 1951, was as follows :—

Registered	...	...	...	...	34
Exempted	...	...	...	...	3
					<u>37</u>

## NURSES' AGENCIES (SCOTLAND) REGULATIONS, 1945.

Of the nine agencies on the register during 1950, two did not apply for renewal of licence for the current year and no new applications were received.

The number of licences held at 31st December, 1951, was therefore seven.

## DAY NURSERIES (INCLUDING 24-HOUR NURSERIES) AS AT END OF YEAR.

	State whether approved for training.	No. of Approved Places.		No. of Children on register at end of year.		Average daily attendances during year.		Waiting lists at end of year. year.	
		Under		Under		Under		Under	
		2 yrs.	5 yrs.	2 yrs.	5 yrs.	2yrs.	5yrs.	2 yrs.	5yrs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>Nurseries Provided by the Authority—</i>									
Cowcaddens, 91 Dunblane St., C.4.	Yes	18	27	15	29	11	27	35	37
Bridgeton, 106 Orr Street, S.E.	Yes	22	28	21	33	18	24	72	112
Kingston, 132 Weir Street, C.5.	No	8	32	8	31	6	24	8	29
42 Bedford Street, C.5. ...	No	10	35	9	28	7	25	29	12
7 Broompark Circus, Dennistoun, E.1. ...	Yes	25	35	20	36	15	25	30	22
3 Clutha Street, Ibrox, S.W.1. ...	Yes	20	30	20	30	13	25	23	35
60 Craik Street, Parkhead, E.1. ...	Yes	18	32	16	37	14	26	57	72
Elderpark, Arklet Road, S.W.1.	Yes	15	25	8	31	7	25	10	17
1107 Gt. Western Road, W.2. ...	Yes	15	25	15	26	12	20	68	58
69 Ellesmere Street, Hamilton- hill, N. ...	Yes	15	30	15	30	12	29	24	22
77 Holmlea Road, Langside ...	Yes	20	30	23	28	16	24	26	33
7 Onslow Drive, Dennistoun, E.1.	Yes	20	40	19	34	12	30	36	32
11 Greenbank Street, Pollokshaws	No	10	30	10	31	5	21	4	2
Quarrybrae, Pharenhill Street, Parkhead, E.1. ...	Yes	17	3	18	2	15	2	36	—
1 Sandyford Place, Sauchichall Street, C.3. ...	Yes	20	30	16	37	10	29	39	98
6 Westereraigs, Dennistoun, E.1.	Yes	15	30	15	30	10	23	9	26
Total ...	...	268	462	248	473	183	379	506	607

Total attendances numbered 132,710, a slight increase on the 132,228 attendances in 1950.

## RESIDENTIAL HOMES.

The demand for admission to Scotstoun House and the two short-stay residential homes has been as great as ever.

## SCOTSTOUN HOUSE.

Scotstoun House which serves as a convalescent home for children under 5 years of age recommended from child welfare clinics in the City continues to be used to capacity with an ever-growing waiting list of applicants. Since the opening of Millbrae Home, B.C.G. vaccination is no longer carried out at Scotstoun House. The two nurseries thus vacated have been utilised for the treatment of infants and very young children requiring residential care. Plans have been drawn up for some structural alterations in the home, involving the addition of a new bathroom unit to make a satisfactory admission ward.

There is no doubt of the important part which the two short-stay residential homes at 9 Winton Drive and Glenrosa, 47 Maxwell Drive, play in the child welfare scheme and it is very rarely that there is not a full complement of children each night.

## MILLBRAE CHILDREN'S HOME.

This home was opened on 10th April, 1951, for the accommodation of children under two years of age requiring B.C.G. vaccination. Ten cots are reserved for the reception of infants of tuberculous mothers from Robroyston Hospital Maternity Unit. The remaining 23 cots are for children under two years of age who are contacts of tuberculosis in their own homes and who require segregation from infection before and after vaccination. The usual duration of residence in the home for this latter group is three months. During the period, April to December, 1951, 104 children were admitted.

## CARNBOOTH HOME.

Carnbooth Home continues to function for the accommodation of children from 2 to 7 years of age requiring B.C.G. vaccination. The number admitted during the year was 114, the usual period of residence being from 2 to 3 months. There is accommodation for 28 children. Some difficulty has been experienced in staffing the home, mainly due to its distance from the City.

The medical care and supervision of children in four homes maintained by the Children's Department is undertaken by members of the Child Welfare staff. These homes are Eglinton, Cleveden, Eversley and



Castlemilk. Routine medical care of children in the homes in addition to investigation for possible incidence of tuberculosis or other infection is undertaken. Vaccination and immunisation against diphtheria, and in the case of young children, against whooping cough, is also carried out. The medical officer in charge is responsible for any emergency duties at these homes and for maintaining a rota of doctors from the Child Welfare staff for visits to homes during the night or at weekends. These doctors also carry out medical examination of children requiring urgent admission to homes during the evening and through the night.

### TRAINING OF NURSERY STUDENTS.

The scheme of training was continued during 1951 and approximately 80 students were in the various stages of the four years' course of training for the Nursery Nurses' Certificate. During the year 51 students sat their examination.

### NURSERIES AND CHILD MINDERS.

The Nurseries and Child Minders Regulation Act which came into operation in August, 1948, provides for the regulation of certain nurseries and of persons who for reward receive children into their homes to look after them.

During 1951 applications were granted in respect of the following premises :—

12 Bruce Road, S.1.	...	...	Nursery School.
24 Regent Park Square, S.1.	...	...	Nursery School.
32 Laurel Street, W.1.	...	...	Nursery School.
Black Institute, Black Street, C.4.	...	...	Toddlers' Playground.

The following were registered prior to 1951 and were still in operation at the end of the year :—

29 Oakfield Avenue, W.2.	...	...	Nursery Class.
68 Overnewton Street, C.3.	...	...	Toddlers' Playcentre.
3 Belgrave Terrace, W.2.	...	...	Nursery Class.
30 Burnbank Gardens, N.W.	...	...	Nursery School.
40 Clouston Street, N.W.	...	...	Nursery.



During the year registrations were cancelled in respect of the following :—

53 Queen Square, S.1.—Nursery (Registered in 1950 but never opened).

28 Hamilton Park Avenue, W.2.—Nursery Class (Registered in 1948).

and there was one transfer when the Nursery School, registered at 23 Piccadilly Street in 1950, moved to St. Mark's Lancefield Church Hall, Argyle Street.

### DOMESTIC HELPS.

There are now 1,000 women enrolled in this service and owing to the evergrowing number of elderly persons requiring assistance of this kind the demand for their services is now constant throughout the year and shows little sign of decreasing. Many of the fulltime helps attend to two part-time cases each day.

There were fewer applications for help in maternity cases during 1951, 2,761 compared with 2,820 in 1950 and 2,834 in 1949. Of these 2,089 were completed, 352 cancelled and 320 were continued into 1952. Of the 1950 cases still outstanding 207 were completed in 1951 and 81 were cancelled. There were 30,659 working days.

It is disappointing that such a small proportion of the expectant and nursing mothers take advantage of the scheme. The maternity attendance allowance of £1 for 4 weeks after confinement is not being spent as it should be in paying for domestic help. Too many mothers fail to reach a complete restoration to health after confinement. Education of the public in this connection is required.

In the general scheme applications numbered 3,615, a decrease of 248 from 1950. Of these 471 were cancelled, leaving 3,144 cases to be dealt with compared with 3,419 in 1950. There were 78,997½ working days. The proportion of cases in the over 60 age group increased from 70 to 71 per cent.

In a large number of instances there was no family or near relative to care for the applicant who was so incapacitated by illness or infirmity as to require assistance for a more prolonged period than that permitted by the general scheme (10 weeks). A special " *E* " scheme was devised

to provide assistance for the duration of the person's incapacity. The number registered under this scheme in 1951 was 570, 20 of which were cancelled. The total cases *dealt* with during the year totalled 873 as there was in addition one case continued from 1947, 16 from 1948, 45 from 1949 and 261 from 1951. About 92 per cent. of these cases were over 60 years of age compared with 90 per cent. in 1950, and 723 of them were unable to pay more than the minimum charges (6d. to 11d.).

It should be noted that as the number on the " E " scheme rises, as it inevitably does, more helps are permanently employed on these long-term cases which means that fewer are available for the general cases. This position led to difficulties at certain periods of the year when intercurrent illness arose in the population, particularly respiratory infections.

Owing to the peculiarly crippling nature of their disability a similar long-term scheme of assistance had to be arranged for cases of *disseminated sclerosis*. At the end of 1951 there were 23 cases in this group, 5 of them between 40 and 60, 15 under 40 and 4 over 60. Seventeen were unable to pay more than the lowest charges of 6d. to 11d.

In an effort to provide domiciliary care for tuberculous patients who are being nursed in their own home while awaiting admission to hospital, or after dismissal, a tuberculosis scheme of domestic helps came into operation in 1949 and forty-five helps were specially enrolled. There are now 50 giving this specialised assistance. The helps must be over the age of 40 and no children under 15 years must be resident in their home. Each recruit undergoes a complete medical examination, including x-ray examination, and has a routine medical check-up every six-months. One hundred and twenty-two cases of tuberculosis applied for help. One hundred and one were assisted and 21 applications were cancelled. One hundred and six cases were under 40 years, 27 were 40-60 years, and 8 were over 60.

The following table shows the illnesses or other conditions in respect of which applications for Home Helps under the general scheme were made.

Diseases	General and " E " Schemes.			
	—40 yrs.	40-60 yrs.	+ 60 yrs.	Total.
Influenza ... ..	16	51	82	149
Cancer ... ..	2	22	70	94
Diabetes ... ..	2	9	45	56
Intracranial Vascular Lesion ... ..	—	34	310	344
Valvular Disease of the Heart ... ..	21	133	528	682
Circulatory ... ..	10	119	419	548
Respiratory ... ..	27	103	335	465
Digestive ... ..	6	30	93	129
Kidney Disease ... ..	—	11	51	62
Accident ... ..	11	45	239	295
Post Operative ... ..	31	85	162	278
Debility post Illness ... ..	2	9	230	241
Nervous Diseases ... ..	11	39	77	127
Hemiplegia ... ..	—	4	31	35
Paraplegia ... ..	—	2	2	4
Paralysis Agitans ... ..	1	2	7	10
General Paralysis ... ..	1	9	20	30
Rheumatism ... ..	11	74	221	306
Senility ... ..	—	—	100	100
Disseminated Sclerosis ... ..	7	11	5	23
All Other Causes ... ..	11	7	21	39
	<hr/> 170	<hr/> 799	<hr/> 3,048	<hr/> 4,017

### MIDWIVES (SCOTLAND) ACTS.

During 1951 there was a decrease of 6 in the number of midwives who notified their intention to practice, so that there are now 137 on the register. The number of those entitled to registration by examination is 134, while the number of those registered as having been in practice in 1914 is now one. There are also 2 with other recognised qualifications. The number who notified their intention to practise for the first time was 8.

On 31st December, 1951, there were 88 Municipal domiciliary midwives in full-time employment of the Corporation and approximately 21 Queen's nurses engaged full-time in midwifery. The Corporation midwives paid 27,540 ante-natal visits to their patients. 83,858 visits were also carried out during the puerperium. The Queen's nurses paid 41,646 visits. In addition the domiciliary midwives are responsible for the domiciliary training of the pupil midwives from the various ex-Corporation Hospital Maternity Units and a certain number of pupil midwives from the Glasgow Royal Maternity and Women's Hospital. During the year 242 pupil midwives were so trained. The scheme provides that there is always a domiciliary midwife and/or one of the non-medical supervisors with the pupil midwife at each confinement. For this training 40 of the midwives are approved by the Central Midwives Board.

The following table shows the record of work :—

- (i) Total number of births *occurring in the area* during year—that is before correction for mothers' residence :—

Live Births 20,123      Still Births 582      Total 20,705

- (ii) Total number of births in (i) occurring in institutions (including private maternity homes) 12,733.

- (iii) Total number of births in (i) occurring at home 7,972.

- (iv) Number of births in (iii) classified to show nature of attendance at birth :—

				Cases dealt with under Section 23 (2) of the National Health Service (Scotland) Act, 1947.				Other domiciliary cases.			Total.
				Doctor engaged and present at confinement.	Doctor engaged and present during Labour.	Doctor engaged and not present at confinement.	Midwife alone (no doctor engaged.)	Doctor and midwife engaged.	Midwife alone (no doctor engaged).	Without doctor or midwife.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(a) Midwives employed by the Authority (including those engaged on a fee-per-case basis) ... ..	1,855	674	1,191	1,497	—	—	—	—	—	—	5,217
(b) Midwives employed by voluntary organisations ...	1,132	371	218	—	—	—	—	—	—	—	1,721
(c) Midwives employed by Hospital Boards of Management ... ..	70	592	47	81	—	—	—	—	—	—	790
(d) Private practising midwives	—	—	—	—	241	3	—	—	—	—	244
(e) Totals ... ..	3,057	1,637	1,456	1,578	241	3	—	—	—	—	7,792

*Note*—Emergency cases under Section 22 (1) of the Midwives (Scotland) Act, 1915, should *not* be included in the cases in which a doctor has been “engaged.”

(v) *Medical Aid.*

- (a) Number of cases in which medical aid was summoned during the year under Section 22 (1) of the Midwives (Scotland) Act, 1915, by a Midwife :—

(i) for Domiciliary Cases ... .. 630  
 (ii) for Institutional Cases ... .. — } Total 630.

- (b) Number of cases in which medical aid was summoned during the year for cases where the medical practitioner had agreed to provide maternity medical services under the National Health Service ... ..

Fees to doctors attending emergency cases amounted to £919 17s. 6d., and during the year £2 17s. was recovered and £2 2s. withdrawn from medical practitioners accounts.

# CASES OF PUERPERAL FEVER OCCURRING IN THE PRACTICE OF MIDWIVES.

Year	Midwives	Cases Notified
1939	45	62
1940	42	61
1941	31	41
1942	24	31
1943	29	39
1944	31	39
1945	31	38
1946	28	42
1947	42	63
1948	27	33
1949	14	14
1950	13	15
1951	8	9

## MATERNITY BUNDLES.

Bundles to the number of 583 were supplied, in respect of which part payment received amounted to £3 4s. 8d.

## MATERNITY OUTFITS.

At the end of 1949 the Corporation decided to issue free of charge to all women having a domiciliary confinement and who applied for one a maternity outfit for the confinement. The outfits are obtained from a wholesale firm and each is sterile and in a sealed cardboard carton. The cost of each outfit during 1951 was 16s. During the year 3,920 were issued.

## OPHTHALMIA NEONATORUM.

There was a slight increase in the number of cases notified as ophthalmia neonatorum during 1951—186 compared with 174 in 1950 and 132 in 1949.

All notified cases were analysed with the undernoted result :—

Ophthalmia Neonatorum	...	...	65
Purulent Conjunctivitis	...	...	67
Simple Conjunctivitis	...	...	47
Dacryocystitis	...	...	2
No abnormality detected	...	...	5
			<hr/> 186 <hr/>

Bacteriological examination showed the following result :—

Gram positive diplococci with diphtheroids	30
Gram positive diplococci ... ..	29
Diphtheroids ... ..	43
Staphylococci ... ..	5
Koch Weeks ... ..	5
Streptococci ... ..	3
Gonococci ... ..	3
No organisms present ... ..	29
No material ... ..	39
	<hr/>
	186
	<hr/>

Analysis of all notified cases according to nature of attendance at birth :—

Doctors ... ..	42
Institutions ... ..	48
Institution nurses ... ..	77
Midwives ... ..	19
	<hr/>
	186
	<hr/>

Analysis of all notified cases classified according to age :—

— 12 hours ... ..	10
— 4 days ... ..	53
— 8 days ... ..	64
+ 8 days ... ..	54
No abnormality detected ... ..	5
	<hr/>
	186
	<hr/>

Twenty-one cases were admitted to Baird Street Hospital for indoor treatment, three of which were positive. In no case was there any impairment of vision. In addition, 16 babies attended as out-patients and made 100 attendances in all. The remaining cases were treated in their own home by health visitors who made 1,394 visits.

In addition 6 cases were admitted to hospital from districts out-with the City, none of which was positive.

The Wassermann Test was carried out on the hospital cases and all gave negative results.



## PUERPERAL FEVER AND PUERPERAL PYREXIA.

During the year there were registered 231 cases of puerperal fever and 105 cases of puerperal pyrexia compared with 153 and 112 respectively for the preceding year. All but *one* case of puerperal fever and all but 22 pyrexias were removed to hospital or other institution.

Deaths associated with cases of puerperal fever *notified* during the year numbered 3. This is equal to a fatality rate of 1·3 per cent. compared with 4·6 for the preceding year.

## SECTION IV.

## INFECTIOUS DISEASES.

The past twenty years have witnessed a remarkable decrease in mortality from infectious disease and as shown in Section II (Statistics) the death rate from this group of diseases was only 124 per million in 1951 compared with the figures of well over 1,000 which prevailed in the early thirties. This has resulted in a dramatic fall in the death rate of children under ten years of age, that section of the population most liable to contract infectious diseases. In 1931 deaths of children in this age group were 26·2 per cent. of deaths at all ages, while in 1951 this proportion was as low as 8·22.

The extent of the decrease is shown in the following comparison of case rates of children under ten for the four major infections, scarlet fever, diphtheria, whooping cough and measles :—

## CASE RATES (per 1,000)

	Scarlet Fever	Diphtheria	Whooping cough	Measles
1930-32 (average)	23·3	8·0	31·8	53·5
1951	10·1	0·3	38·2	22·6

It will be observed that contrary to the general trend whooping-cough is increasing and its mortality is considerable, as shown in the following table :—

MORTALITY OF THE COMMONER INFECTIOUS DISEASES  
RATE PER MILLION OF CHILDREN UNDER 10 YEARS OF AGE.

Period	Scarlet Fever	Diphtheria and Mem. Croup	Whooping cough	Measles
1930-34	284	536	1,195	1,353
1935-39	108	715	959	630
1940-44	27	575	484	227
1945-49	14	87	163	98
1950	—	—	70	81
1951	5	22	135	38

In spite of this encouraging reduction it is still necessary to maintain a close watch on all forms of infectious disease, since, as Dr. Anderson points out in his report (Appendix B) on hospital treatment of infectious disease, it is not uncommon for a disease, after a latent period of some years, to become prevalent again, often in a more virulent form. Other diseases, such as poliomyelitis and dysentery, have only recently acquired a high incidence, and although in both instances the number of cases was less during 1951 both diseases remain a potential threat to the child population.

These changing trends in disease incidence can be studied in the table on page 82, which shows case rates per million for each disease and for each year from 1931 onwards. (The rates have been recalculated on the revised intercensal populations.)

Although certain individual diseases showed a slight increase during the year the total cases registered (31,722) were fewer in number than in 1950 (34,505). In addition cases removed to hospital and ultimately diagnosed as non-infectious numbered 2,581 compared with 2,553 in 1950. For certain diseases, such as Puerperal Fever, Scarlet Fever, Diphtheria and Pneumonia, there was an increased demand for hospital accommodation this year, but on the whole fewer cases were removed to hospital—10,613 compared with 11,761 in 1950. (Of these 9,945 were removed to fever hospitals and sanatoria and 668 to other institutions, mostly general hospitals.) Most of this reduction was due to the decreased incidence of poliomyelitis and dysentery. Details of notifiable and non-notifiable diseases are given in Appendix Table XV, while Appendix Table XVI illustrates their seasonal prevalence.

Hospital treatment is discussed in Appendix B which also shows the relative tables of admissions, dismissals and deaths in the four fever hospitals.

### IMMUNISATION CENTRE.

The Immunisation Centre at 20 Cochrane Street was established originally at the request of the Department of Health and is now maintained on behalf of the Western Regional Hospital Board. It provides intending travellers from the West of Scotland with immunisation against yellow fever and certain other infectious diseases likely to be met with in a foreign country.



Almost each year since its establishment there has been a steady increase in the numbers attending. Since the Centre was established in 1947, 10,701 intending travellers have been inoculated against yellow fever and of this figure 3,090 came during 1951.

In 1950, the services of the Centre were extended to cover enteric, plague, typhus, cholera and smallpox, as well as yellow fever, where the traveller's own doctor was not available. In 1951, for inoculations against these diseases alone, 1,050 persons made 1,874 attendances, while for all purposes 4,140 people availed themselves of this service during the course of the year under review.

### SMALLPOX AND VACCINATION.

There was no case of smallpox during 1951. Compulsory vaccination or declaration of conscientious objection ceased with the coming into operation on 5th July, 1948, of the National Health Service (Scotland) Act. Provision, however, was made for the notification of vaccination by medical practitioners, and in 1951 notifications were received of 8,745 primary vaccinations and 3,697 revaccinations. Vaccinations done at Child Welfare Clinics during the year numbered 3,193 and the total primary vaccinations would therefore appear to be 11,938 or 59·4 per cent. of the total births during the year. This compares with 56·7 in 1947, the last complete year of compulsory vaccination, when in addition 3·4 per cent. were certified as insusceptible, making a total of 60 per cent. These figures are encouraging and appear to indicate that the 1950 smallpox outbreak has increased the willingness of parents to protect their children from this disease. It must never be overlooked that present day developments in air travel are such that a serious outbreak of smallpox can occur in this country at any time.

### LEPROSY.

Under the Public Health (Infectious Diseases) (Scotland) Amendment Regulations of 1951, this disease became compulsorily notifiable from 1st September, 1951. This means that every medical practitioner must notify the Medical Officer of Health of any case of leprosy coming to his notice.

This is a disease of rare occurrence in this country and such cases as have been found in Glasgow were foreign seamen or students from tropical countries where this disease is prevalent. In the past twenty years only five cases have come to the notice of this Department.



## MALARIA.

This disease, like smallpox and leprosy, is usually introduced into the city by servicemen returning from abroad or foreign visitors. During 1951 there were 14 cases as against 9 in 1950. Incidence in recent years was as follows :—

(Average) 1930-38	...	...	15
1939-45	...	...	24
1946-50	...	...	30
1951	...	...	14

All the cases were adult males except two, a boy of 5 and a girl of 4, both of whom had recently arrived in the city from abroad.

## TYPHOID, PARATYPHOID AND DYSENTERY

*Typhoid* :—Only two cases were registered. A woman living in the Central Division contracted the illness in August ; and a patient was brought into the Port in September. The only death due to typhoid was that of a woman who had fallen ill in the previous year. Typhoid fever has become rare in Glasgow, but it has never disappeared from the annual records of the city's infectious diseases.

*Paratyphoid* :—There were 50 cases, the largest yearly total since the year 1942. In January there was a familial group of 8 cases in the Northern Division ; but the outstanding event was a widespread increase in prevalence between the beginning of November and the middle of December. During this period 31 cases sickened. Two of these cases came from towns near Glasgow ; the remainder were derived in almost equal numbers from the five Glasgow Divisions. There were only two familial groups, each consisting of three cases. Sixteen of the outbreak cases were under 15 years of age ; and twenty-two were females. Prevalence during the colder half of the year and the susceptibility of women and children have been similarly recorded on former occasions in connection with paratyphoid in Glasgow and vicinity. On the occasion under review there was no explosive onset of the outbreak ; and the number of cases sickening on the same day never exceeded three. No common source of infection was discovered and there were no deaths from this disease during the year.



*Bacillary Dysentery*.:—There were 1,550 cases. This total is the highest recorded in any year except during 1950 ; and the disease has been very prevalent for the past four years. The Eastern Division was the most heavily affected, especially the wards of Calton and Dalmar-nock. Other city wards yielding large numbers of cases were Partick West, Kingston, Gorbals and Kinning Park. The number of domestic and institutional cases and their seasonal incidence are shown in the following table :—

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
Home Infections	450	394	278	299	1,421
Institutional	37	56	25	11	129

It is seen that the incidence had fallen considerably by the end of the year. The number of cases originating in institutions was again remarkably low considering that the institutional total comprises cases from 27 institutions. The largest outbreak affected 13 old men in two contiguous wards of Foresthall in the second quarter of the year ; all survived the attack. This outbreak, like most of the other institutional outbreaks, was of the Sonne variety. The age incidence of the year's cases and their fatality were as follows :—

	—1 Year	—5 Years	—15 Years	—55 Years	55+ Years	Totals
Home Infections	111	731	300	242	37	1,421
Institutional	8	48	25	22	26	129
Deaths	1	1	—	—	2	4

The figures show that children under school age are particularly liable to infection and that the fatality of the disease remains low.

### SCARLET FEVER.

In 1951 there were 2,291 cases registered compared with 1,899 during the preceding year. Although this is an increase of 392 cases it is still the second lowest number recorded apart from the years 1940 and 1941 when many children were evacuated from the city. The total number treated in hospital was 1,672, while 619 were nursed at home. The percentage cared for at home, namely, 37 per cent., is much in keeping with the figures of recent years. This is very different from the early years of the century when all but ten per cent. of cases were removed to hospital on account of the severity of the illness and presumably to assist in preventing the spread of infection to others.

The disease is now one almost entirely confined to infants and children under school age, and only 5·5 per cent. of the cases occur after the age of 15 years. The seasonal prevalence is given in Appendix Table XVI. The heaviest incidence of the disease was recorded in Mile-end Ward where there were 141 cases, followed by Dalmarnock with 95 cases and Cowcaddens with 94, all districts with large child populations.

The disease itself continues to be mild and as in 1950 only one death from the disease was recorded. The mildness of the infection is exemplified by the number of late notifications which are received by the Department due to the difficulties which practitioners experience in initially making the diagnosis, and also by the frequent domiciliary visits made by medical officers of the respective divisions to cases of clinical difficulty owing to the evanescent nature of the rash. The use of increasingly costly hospital beds for the isolation of such mild cases is another serious problem which is causing concern to this Department and the Regional Hospital Board.

### ERYSIPELAS.

This disease is still decreasing and in 1951, 226 cases were registered compared with 282 in 1950. Female cases were again more numerous, 134 as against 92 males. For 1950 the respective figures were 171 and 111. There were no deaths in 1951.

The decline in mortality in recent years is as follows:—

Deaths				Deaths			
1929	...	...	52	1948	...	...	5
1930-39 (average)			46	1949	...	...	2
1940-45 (average)			8	1950	...	...	2
1946	...	...	18	1951	...	...	—
1947	...	...	4				

### PUERPERAL FEVER AND PYREXIA.

As in previous years these conditions have been discussed in the section "Maternity and Child Welfare" (page 79). As a result of alterations in the International Classification of Causes of Death, deaths from these two infections no longer appear under separate heading in the "Short List" but are now included in the group "Complications of Pregnancy, Childbirth and the Puerperium." The figures for 1950 and 1951 are not therefore comparable with those of previous years.

## DIPHTHERIA.

The paramount importance of continually pressing the immunisation campaign is emphasised this year when the records show that diphtheria was responsible for four deaths in 1951 as compared with none in 1950. Investigation showed that all four deaths occurred in non-immunised children (two females aged 3 years and two males aged 5 years). In addition, as the following table shows, the number of cases of diphtheria increased from the low record of 86 to 130, 80 per cent. of the new cases occurring in non-immunised individuals :—

Year	Cases	Deaths
1940    ...    ...    ...	5,190	220
1941    ...    ...    ...	4,039	155
1942    ...    ...    ...	3,325	90
1943    ...    ...    ...	2,919	81
1944    ...    ...    ...	2,377	62
1945    ...    ...    ...	1,970	33
1946    ...    ...    ...	1,458	37
1947    ...    ...    ...	502	13
1948    ...    ...    ...	286	8
1949    ...    ...    ...	148	5
1950    ...    ...    ...	86	—
1951    ...    ...    ...	130	4

The public must be taught to realise that diphtheria still remains a killing disease and that the only known protection against it is immunisation. The protection of every child lies in the hands of his parent or guardian. Immunisation is provided free under the National Health Scheme.

The seasonal incidence of the disease is given in Appendix Table XVI and still shows a decided tendency for the disease to occur during the colder months. The proportion of cases occurring in those of school age and under, namely, 94·6 per cent., is greater than in former years. This year in 13 wards of the city no case occurred, but a most remarkable feature of the geographical incidence of the disease was the fact that three wards e.g. Gorbals (33 cases), Mile-end (19 cases), and Kingston (11 cases), contributed 48·5 per cent. of all cases. In the remaining 21 wards of the city the distribution of the cases was fairly uniform.

*Immunisation* :—The following table shows the progress of the immunisation campaign during the past six years :—

	No. of Children Immunised.				No. of Reinforcing Doses.			
	—5 yrs.	+5 yrs.	Age not Stated	Total	—5 yrs.	+5 yrs.	Age not Stated	Total
1946	8,745	3,734	—	12,479	61	1,723	—	1,784
1947	10,560	10,143	—	20,703	32	4,809	—	4,841
1948	12,701	9,819	16	22,536	691	6,959	7	7,657
1949	11,403	6,106	—	17,509	65	24,283	—	24,348
1950	7,624	5,771	28	13,423	84	19,758	3	19,845
1951	11,864	7,832	1	19,697	130	23,851	—	23,981

Birthday letters are sent to parents of children who have reached their first birthday and to parents of toddlers known to Health Visitors to be unprotected.

	Letters Sent		Total	Number Immunised under 5 years of age
	Infants	Toddlers		
1946	5,686	5,814	11,500	8,745
1947	6,846	8,210	15,056	10,560
1948	7,490	8,972	16,462	12,701
1949	6,204	10,030	16,234	11,403
1950	5,044	8,371	13,415	7,624
1951	5,296	9,114	14,410	11,864

The figures for 1950 and 1951 are not comparable as those for 1950 are for only eight months of that year. Acute poliomyelitis was very prevalent from July to October, 1950, and the immunisation campaign was discontinued, as a precautionary measure, during that period. Compared with 1949, the latest complete year, the figures show a slight increase, but are still far too low and represent only a small proportion of the child population at risk.

The increased prevalence of the more virulent “ Gravis ” strain of the diphtheria bacillus reported by the Bacteriologist in Section IX of this report emphasises the fact that this disease has not yet been brought fully under control and any abatement of the immunisation campaign at this stage would be fraught with serious consequences.

## DISEASES OF THE CENTRAL NERVOUS SYSTEM.

*Cerebro-spinal Fever.*—There was a slight increase in the number of cases this year, 126 compared with 115 in 1950, almost equally divided between the sexes. Ninety-four of the cases were children in the following age groups :—

		— 1 year	— 2 years	— 5 years
Males	...	18	12	15
Females	...	27	6	16

Distribution was general throughout the city, Mile-end having the highest ward incidence (7).

The seasonal incidence was as follows :—

		1951	1950	1949
1st Quarter	...	43	34	36
2nd „	...	29	33	16
3rd „	...	22	20	15
4th „	...	32	28	34
		<u>126</u>	<u>115</u>	<u>101</u>

On the Short List of Causes of Death this infection now appears under the heading “ Meningococcal Infections ” and during 1951 15 deaths were so recorded. This compares with 13 deaths in 1950 and 9 in 1949.

## ACUTE POLIOMYELITIS AND ACUTE POLIOENCEPHALITIS.

Notifications received during the year numbered 81 (poliomyelitis 80, polioencephalitis 1) and showed the usual maximum prevalence in the summer and early autumn months.

TABLE I. NOTIFICATIONS.

Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
3	1	1	2	6	9	14	13	14	8	7	3	81

After revision of diagnosis there remained on the register as confirmed 55 cases (54 poliomyelitis and 1 polioencephalitis). Of this total 31 were paralytic and 24 non-paralytic. This is a considerably higher proportion of non-paralytic cases than has been previously recorded in the City but this higher incidence was experienced in other parts of the country also.

One death from bulbar poliomyelitis was recorded—an adult male, aged 31 years, who contracted the infection in the middle of November and died of an acute respiratory collapse on the sixth day of his illness.

The sickening dates of the confirmed cases were spread out over the latter part of the year :—

TABLE 2. SICKENING DATES OF CONFIRMED CASES

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Paralytic ...	—	—	—	1	2	8	6	4	3	3	2*	2
Non-Paralytic	—	—	—	1	2	1	2	6	5	7	—	—
Total ...	—	—	—	2	4	9	8	10	8	10	2	2

\* Includes one death.

While there was no particular focus of infection in the City, nor any traceable association between any of the confirmed cases (except that two came from the one household), there was a heavier incidence of infection in the two areas lying to the west of the centre of the City (Central and South-West) :—

TABLE III.

		Paralytic	Non-Paralytic	Total
Central (West)	...	12	8	20
North	... ..	4	3	7
East	... ..	6	2	8
South-East	... ..	5	1	6
South-West	... ..	4	10	14

The age and sex distribution of the cases was as follows :—

		—2	—5	—10	—15	15+	Total
Paralytic	{ M	3	6	2	1	4	16
	{ F	3	6	2	—	4	13
Non-Paralytic	{ M	1	3	6	3	5	18
	{ F	1	1	3	1	—	6
Total	{ M	4	9	8	4	9	34
	{ F	4	7	5	1	4	21

which shows the recognised tendency for males (61 per cent.) to be more frequently attacked than females (39 per cent.). In the epidemic of 1950 there was a very marked tendency for children under the age of 5 years to be affected—72·6 per cent. of the total ; in 1951, however, only 42 per cent. of the cases were in the under 5 age group, although if the estimate is based on paralytic cases only this rises to 68 per cent. under 5.



The youngest child affected was an infant six weeks old who developed paralysis of the left leg ; the oldest person affected was a female aged 35 years, who in October in the third month of a pregnancy, developed paralysis of both deltoids and her diaphragm but had a fair degree of recovery before her confinement.

No cases were treated in the respirator during the year.

As previously stated one adult male (aged 31 years) died. The post-mortem findings were typical of those of poliomyelitis involving the upper spinal cord and the brain stem. Death was certified as due to " Bulbo-spinal Poliomyelitis ".

Ample hospital accommodation was available for the treatment of all cases notified. All but two were admitted to fever hospitals and of the 29 paralytic cases treated in the fever hospitals, 11 were sufficiently recovered to be sent home after 4 to 6 weeks, and of the 17 transferred to orthopaedic hospitals for further treatment, 5 were sent home in the first four months and it is anticipated that only 3 or 4 will require prolonged treatment.

The site of the paralysis is indicated in the following table :—

Bulbar—	Facial, etc....	...	...	9
Arms—	Both	...	...	2
	Left	...	...	3
	Right	...	...	2
Legs—	Both	...	...	3
	Left	...	...	8
	Right	...	...	4

An attempt has been made to classify the severity of the paralysis at onset and to compare that with the final result assessed some six months after leaving hospital.

Severity	At Onset			6 months after leaving hospital
Nil	...	...	—	5
Minimal	...	...	—	4
Slight	...	...	7	10
Moderate	...	...	18	8
Severe	...	...	5	3
Died	...	...	1	1

*Summary.*—Thirty-one paralytic and 24 non-paralytic cases of infantile paralysis occurred in 1951. Only one death was reported. The disease prevalent was apparently of a milder type as evidenced by the high proportion of non-paralytic cases and by the less extensive paralysis in other cases.

## ENCEPHALITIS.

*Encephalitis of Unknown Origin.*—On 15th June a 12 year old girl, certified scarlet fever, was admitted to a fever hospital. Her symptoms and signs on admission were suggestive of polioencephalitis—there was a flaccid paralysis of left arm and left leg—and although she was almost in a state of coma and moribund, the laboratory findings on a specimen of cerebrospinal fluid were negative. She died in hospital that day and no post-mortem was performed. The cause of death was certified as encephalitis of unknown origin.

*Encephalitis Lethargica.*—There have been only sporadic cases of this infection since the small outbreak which occurred in 1937. During 1951 there were only two cases, an infant under 1 year and an adult over 45 years, both males.

*Post Encephalitic Lethargica.*—A group of cases, 26 in number, the remaining survivors of a Glasgow Epidemic which affected 70 persons in all, has been under the continuous supervision of Dr. Ashie Main since 1923 and the following tables show the physical capacity of these cases as at June, 1951 :—

### PHYSICAL CONDITION.

			Males	Females	Total
Fit for housework	...	...	—	7	7
Fit for employment	...	...	8	3	11
Unfit but going about	...	...	1	1	2
Bedridden at home	...	...	1	1	2
Cases in General Hospital	...	...	2	—	2
Cases in Mental Hospital	...	...	1	—	1
Cases untraced	...	...	1	—	1
			<hr/> 14	<hr/> 12	<hr/> 26

There has been little change in the condition of these patients in recent years. In the course of the year 1950/51 there was one death, a female aged 54, who succumbed to haemoptysis and diabetes. Classification of one male was altered from Group III to Group IV.

		Spring 1951	Spring 1950
Group I.	Recovery complete ... ..	4	4
Group II.	Recovery incomplete :—		
	Class A. Mental Retardation ...	2	2
	Class B. Mental Instability ...	1	1
	Class C. Nervous Instability ...	11	12
		—	14
Group III.	Perversion of Conduct ...	—	—
			15
			1
Group IV.	Parkinsonians :—		
	Class A. Normal Mentality ...	2	2
	Class B. Abnormal Mentality ...	6	5
		—	8
Group V.	Died ... ..	1	7
		—	—
		27	28
		==	==

### MEASLES.

During the year 4,287 cases of measles were registered with 7 deaths, 5 deaths occurring in the first two years of life. 433 cases were treated in hospital.

Period	Registered Cases	Deaths	Fatality per cent.
1946-1950	32,929	85	0.26
1950	6,837	15	0.22
1951	4,287	7	0.16

Since 1942, with the exception of 1947 and 1948, the maximum prevalence has been in the first half of the year. In 1951 approximately three-quarters of the cases were registered between January and June, the greatest number (889 cases) being registered in May.

### QUARTERLY INCIDENCE OF MEASLES, 1950 and 1951.

	1950	1951
First Quarter ... ..	1,195	1,127
Second Quarter ... ..	4,698	2,112
Third Quarter ... ..	337	290
Fourth Quarter ... ..	607	758
	==	==
	6,837	4,287

While the incidence as compared with 1950 fell by rather more than one-third, the fall was not uniform throughout the City, and in certain parts in the West and South-West of the City an increase over 1950 was noted.

The proportionate mortality of measles deaths under 5 years to deaths from all causes under 5 years is less than in the period 1946-1950.

#### PROPORTIONATE MORTALITY UNDER 5 YEARS

Period		Deaths from all causes under 5 Years	Measles Deaths under 5 Years	Proportionate Mortality Per Cent.
1946-1950	...	7,870	80	1.02%
1950	...	1,069	14	1.31%
1951	... ..	1,093	7	0.64%

#### RUBELLA OR GERMAN MEASLES.

This disease was much less prevalent in 1951 with only 641 cases compared with 3,299 in 1950. Seasonal incidence was highest in the early months of the year culminating in 125 cases in April and 200 in May and coincident with the peak incidence of Measles. The age distribution was as follows:—

Age	—5	—10	—15	—35	Total
Number of Cases	47	512	64	18	641

Six of the adult cases were women of child bearing age. The association between rubella in pregnant women and congenital malformations in the children they bear is now being investigated. Reference is made to this in the Maternity and Child Welfare Section of this report.

#### WHOOPING COUGH.

7,272 cases of whooping cough were notified during the year, 472 or 6.5 per cent. being treated in hospital; 60 per cent. of the cases were under 5 years of age compared with 58 per cent. in 1950.

There were 25 deaths, 17 in the first year of life and 4 in the second.

Period		Registered Cases	Deaths	Fatality per cent.
1950-1946	...	19,215	138	0.72
1950	...	5,383	13	0.24
1951	...	7,272	25	0.34

The upward trend of notifications in 1950 continued into January, 1951, with 1,671 notifications during the month, the maximum monthly notifications for the year. The notifications subsequently fell, and in June reached the figure of 336. Rather less than 10 per cent. of notifications were received in the second half of the year.

#### QUARTERLY INCIDENCE OF NOTIFICATIONS OF WHOOPIING COUGH IN 1950 AND 1951.

	1950		1951	
	Notifications	Percentage of Total	Notifications	Percentage of Total
1st Quarter	477	8.9	4,385	60.3
2nd Quarter	1,101	20.4	2,169	29.8
3rd Quarter	1,092	20.3	397	5.5
4th Quarter	2,713	50.4	321	4.4
	<hr/> 5,383	<hr/> 100.0	<hr/> 7,272	<hr/> 100.0

#### PROPORTIONATE MORTALITY.

Period	Deaths from all Causes under 5 Years	Deaths from Whooping Cough under 5 Years	Proportionate Mortality under 5 years per cent.
1946-1950	7,870	80	1.02
1950	1,069	13	1.22
1951	1,093	24	2.20

#### CHICKENPOX.

The 8,053 cases of chickenpox registered in 1951 is the second highest number since 1930 (there were 8,243 cases in 1942). Incidence of this disease in recent years is shown as follows :—

1930-39 (average)	...	6,354
1940-49 (average)	...	5,377
1950	... ..	7,004
1951	... ..	8,053

Cases are removed to hospital only in special circumstances, e.g., when occurring in institutions, children's homes, etc. During 1951 247 cases were removed to hospital. The disease is probably much more prevalent than the bookings indicate, for it is mostly on information obtained from school attendance officers that cases are registered. The distribution throughout the City was as follows :—

East	...	...	...	2,050
North	...	...	...	1,915
Central	...	...	...	1,162
South-East	...	...	...	1,594
South-West	...	...	...	1,324
Institutions	...	...	...	8
				<hr/> 8,053 <hr/>

The wards chiefly affected were Mile-End (503), Shettleston and Tollcross (381), Cathcart (366), Gorbals (361), and Dalmarnock (354). The seasonal incidence followed the same course as that of 1950, an increase in the preceding December rising to a maximum in March. The March 1951, peak was higher than that of the previous year, 1,559 cases compared with 1,301. On the other hand the expected winter increase did not materialise as after a preliminary rise in November (457 cases) the disease began to abate in December (337) and has continued at a much lower level throughout the current year.

### DIARRHOEA AND ENTERITIS.

Mortality from this cause shows a marked reduction for the fourth year in succession. During 1951 there were only 67 deaths, and of these 64 occurred in children under one year of age (3 per 1,000 births). Mortality in infants under a year is greater among males as the following table indicates :—

	Males		Females		Total	— 1 year per 1,000 Births
	— 1 year	— 2 years	— 1 year	— 2 years		
1945	225	16	138	6	363	12
1946	166	6	117	6	283	12
1947	339	5	221	9	574	22
1948	156	5	86	3	250	11
1949	100	13	57	6	176	7
1950	50	2	39	3	94	4
1951	37	2	27	1	67	3



Flies play an important part in the spread of this disease, so that any factor which results in a reduction in the fly population tends to limit its extent. Weather conditions are naturally very important, hot dry summers encouraging the breeding of flies. During the past two years the summer months have been wet and mild, while the Department's fly control unit has been particularly active. These factors combined with active health propaganda have brought about a marked reduction in the morbidity and mortality from this disease.

#### NUMBER OF DEATHS UNDER 1 YEAR ACCORDING TO MONTH OF DEATH.

1950.				1951				1950				1951			
Deaths		Temp.		Deaths		Temp.		Deaths		Temp.		Deaths		Temp.	
January	9		38.8	4		36.5		July	...	3	58.4	6		58.4	
February	11		37.6	11		35.7		August	...	7	57.4	2		56.8	
March	10		44.0	5		37.5		September		6	51.9	4		55.1	
April	2		42.9	9		42.2		October	...	6	46.9	7		49.7	
May	10		51.9	1		48.5		November		10	38.8	5		44.6	
June	7		59.1	7		56.1		December		8	32.5	3		40.3	

#### PEMPHIGUS NEONATORUM.

This disease of infancy is again on the increase, 32 cases on 1951 compared with 20 in 1950 and 11 in 1949. Male cases numbered 20 as against 12 females.

#### RABIES.

No case of rabies is known to have occurred, but throughout the year numerous instances of persons having been bitten by dogs or other animals were reported by the police for investigation.

During 1951 380 persons were bitten by dogs, 11 seriously enough to require stitching of the wound. This compares with 411 in 1950 and 255 in 1949. In addition, four persons were bitten by horses, three by cats and two by rats.

#### TRACHOMA.

During the year two new cases were notified as suffering from trachoma. In the table below is shown the number of cases notified and the number verified each year for the past ten years.

Year				No. of New Cases Notified	Definite	Doubtful
1942	...	...	...	10	8	2
1943	...	...	...	4	4	—
1944	...	...	...	12	12	—
1945	...	...	...	13	13	—
1946	...	...	...	14	13	1
1947	...	...	...	1	1	—
1948	...	...	...	4	3	1
1949	...	...	...	—	—	—
1950	...	...	...	8	8	—
1951	...	...	...	2	2	—

In addition to the two new cases mentioned above one old case returned and was placed on the register. One case died, one was discharged well and seven were removed from the register by transfer to other areas, etc. Thus the total number of cases on the register at the end of 1951 was 108 as compared with 114 at the end of 1950.

#### NUMBER OF CASES ON REGISTER.

Year				Definite Cases	Doubtful Cases	Total
1942	...	...	...	139	8	147
1943	...	...	...	140	6	146
1944	...	...	...	142	6	148
1945	...	...	...	145	6	151
1946	...	...	...	144	6	150
1947	...	...	...	133	3	136
1948	...	...	...	116	1	117
1949	...	...	...	106	—	106
1950	...	...	...	114	—	114
1951	...	...	...	108	—	108

Patients attending the clinic made a total of 1,229 attendances of which 284 were consultations by the ophthalmic surgeon and 945 were treatments given by the nurse. During the same period the nurse made 218 home visits. No home contacts developed the disease during the year.

Hospital treatment was required for three cases. These patients were treated in Stobhill Hospital.

## INFECTIVE JAUNDICE.

During the year, although four notifications of leptospirosis were sent to this Department from hospitals within the City, only one of the cases was resident within the City's boundaries. This case, a man of 20 years of age employed with a firm of offal merchants, was admitted to an infectious disease hospital in July, 1951, as a case of suspected cerebral spinal fever. Three days after admission he developed conjunctival haemorrhages and epistaxis but no jaundice. Blood examination carried out nine days later revealed the presence of leptospira ictero-haemorrhagiae. Schuffner Tests gave positive agglutination. The patient made an uninterrupted recovery and was discharged from hospital fit and well.

## ANTHRAX.

During 1951 two cases of anthrax were notified to the Department. Both were associated with tanners in the east end of the City. On the 31st May a hide porter (aged 65 years) developed a small pustule on his right wrist. Five days later this was very inflamed and he had considerable constitutional upset. Analysis of a swab taken from the wrist established the diagnosis of anthrax. The patient was transferred to the fever hospital and made an uneventful recovery after treatment with penicillin aureomycin. Bacteriological analysis of hides of the same batch failed to reveal further evidence of anthrax. Another flesher in the same tannery (aged 28 years) developed a septic spot in the right mid-scapula on 23rd June. Two days later the condition had so worsened that he attended a hospital out-patient department and received an injection of penicillin. Next day, however, he felt ill and was unable to attend his work. Examination of the lesion on that date revealed a black eschar half an inch in diameter in the right mid scapular region, the surrounding skin being intensely inflamed and showing two massive bullae. The skin on the whole of his back was swollen and edematous from the shoulder to the loin. He was removed to a fever hospital until the diagnosis was confirmed bacteriologically. This patient, because of the particularly hot weather at that time, had been working very lightly clad. He recollected having had a small pimple on his back four or five days previous to his illness and it was concluded that he had probably infected himself in that region while handling the hides.

## SCABIES.

During the year under review no great alteration has occurred in the number of families affected or in the number of cases involved in these families. Throughout the city 369 cases were recorded during the year, occurring in 225 families. This is practically the same as last year except that the number of families has been reduced by 41, while the number of cases has increased by 14. The reduction in the number of families involved is a good sign and tends to show that this condition is declining still further. Below are given the numbers of families and cases occurring in each of the Public Health Divisions.

Division	No. of Families	No. of Cases
Central ... ..	30	48
Northern ... ..	90	150
Eastern ... ..	50	82
South-Eastern ...	45	75
South-Western ...	10	14
Total ... ..	<u>225</u>	<u>369</u>

## RESPIRATORY DISEASES OTHER THAN TUBERCULOSIS.

The death rate per million for respiratory disease, excluding tuberculosis, was 1,440, compared with 1,284 in 1950 and 824, the lowest on record for the City, in 1948.

## DEATHS FROM RESPIRATORY DISEASE, 1946-1951.

	Pneumonia and Bronchitis	Influenza	" Other Respiratory Disease "
1946 ... ..	1,055	160	153
1947 ... ..	1,118	82	144
1948 ... ..	738	37	140
1949 ... ..	932	131	142
1950 ... ..	1,205	57	137
1951 ... ..	1,268	183	118

The incidence of deaths from pneumonia and bronchitis is high in the first year of life and falls rapidly during the following four years. Subsequently it remains at a low level till the age of 35 when a rise becomes apparent, rapidly increasing after the age of 45 years.

## DEATHS FROM PNEUMONIA AND BRONCHITIS.

				1951	1950
Under 45 years	Male	...	...	106	113
	Female	...	...	76	92
	Both Sexes	...	...	182	205
45-65 years	Male	...	...	284	287
	Female	...	...	105	105
	Both Sexes	...	...	389	392
Over 65 years	Male	...	...	394	357
	Female	...	...	303	251
	Both Sexes	...	...	697	608
All ages, both sexes				1,268	1,205

It will be seen that the increase in deaths from pneumonia and bronchitis has occurred in the over 65 age group.

Bronchitis as a primary cause of death is increasing in importance. In males at ages between 55 and 65 years there were 146 deaths from bronchitis compared with 44 deaths from pneumonia.

In the following table the deaths from pneumonia and bronchitis have been listed separately :—

				Pneumonia	Bronchitis
Under 45 years	Male	...	...	73	33
	Female	...	...	65	11
	Both Sexes	...	...	138	44
45-65 years	Male	...	...	69	215
	Female	...	...	45	60
	Both Sexes	...	...	114	275
Over 65 years	Male	...	...	140	254
	Female	...	...	136	167
	Both Sexes	...	...	276	421
All ages, both sexes				528	740

Influenza due to Virus A occurred in epidemic form in January and was responsible for the increase in the recorded deaths from this cause. While the notifications of pneumonia, including influenzal pneumonia rose by 257 from 3,577 in 1950 to 3,834 in 1951, the January figures were more than double those of January, 1950 ; 1,127 as against 527. The increase in the recorded deaths from influenza over the 1950 figures occurred mainly in the elderly.

## DEATHS FROM INFLUENZA.

				1951	1950
Under 5 years	Male	...	...	2	1
	Female	...	...	9	2
	Both Sexes	...	...	11	3
5-45 years	Male	...	...	5	3
	Female	...	...	4	2
	Both Sexes	...	...	9	5
45-65 years	Male	...	...	24	7
	Female	...	...	15	4
	Both Sexes	...	...	39	11
Over 65 years	Male	...	...	48	11
	Female	...	...	76	27
	Both Sexes	...	...	124	38
All ages, both sexes				183	57

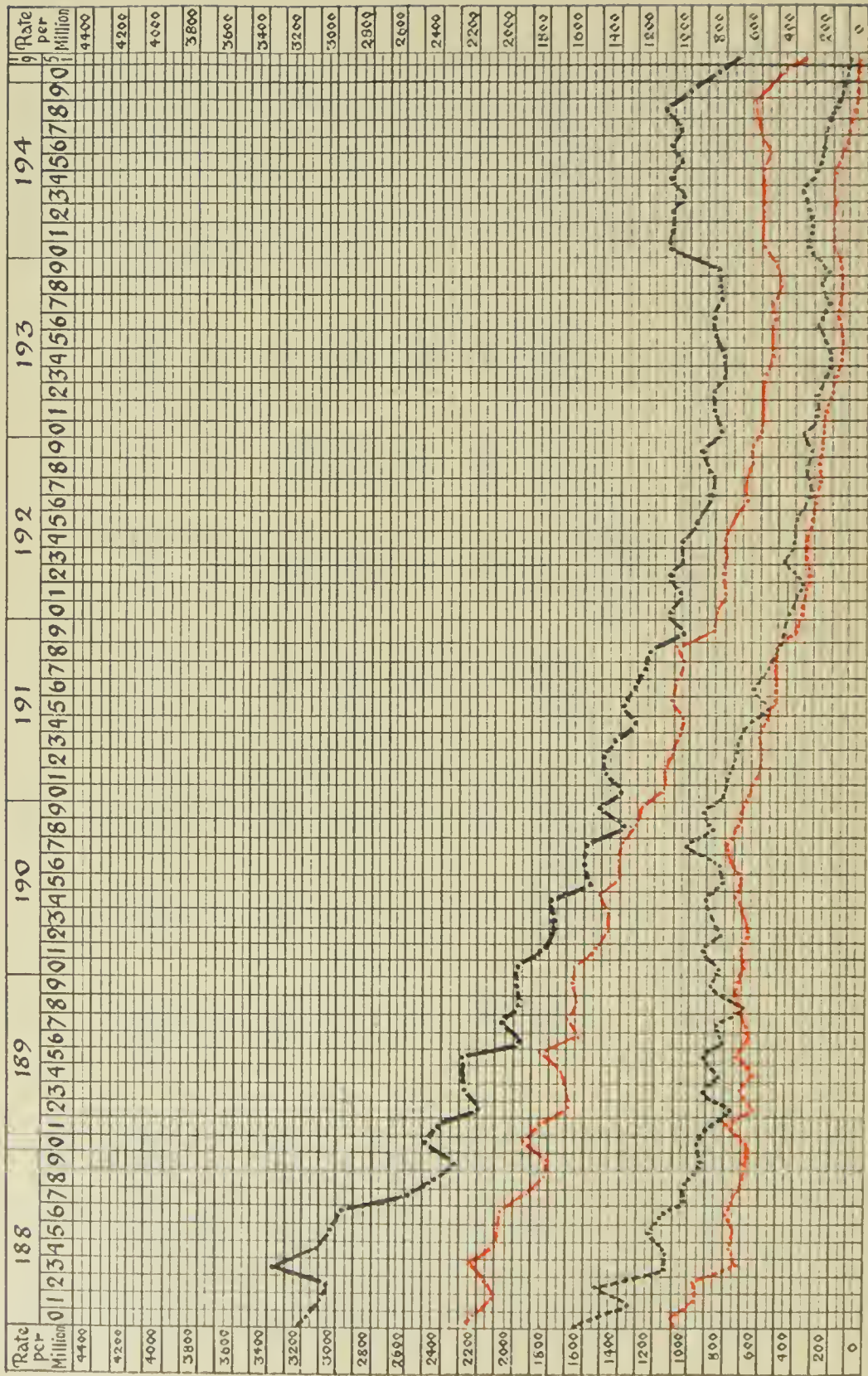


PROPORTIONATE MORTALITY PER CENT. OF DEATHS FROM ALL CAUSES, OF DEATHS FROM PNEUMONIA  
BRONCHITIS AND INFLUENZA ACCORDING TO AGE AND SEX.

Age Groups	MALES.				FEMALES				BOTH SEXES			
	Deaths from all Causes		Pneumonia, Bronchitis and Influenza		Deaths from all Causes		Pneumonia, Bronchitis and Influenza		Deaths from all Causes		Pneumonia, Bronchitis and Influenza	
			Deaths from all Causes	Prop. Mort. Per Cent.			Deaths from all Causes	Prop. Mort. Per Cent.			Deaths from all Causes	Prop. Mort. Per Cent.
Under 5 years ...	599	75	12.52	494	61	12.35	1,093	136	12.44			
5-45 years ...	724	38	5.25	637	28	4.40	1,361	66	4.85			
45-65 years ...	2,337	308	13.18	1,630	120	7.36	3,967	428	10.79			
Over 65 years ...	3,869	442	11.42	4,022	379	9.42	7,891	821	10.40			
All ages ...	7,529	863	11.46	6,783	583	8.67	14,312	1,451	10.14			
(All ages 1950) ...	(7,329)	(779)	(10.62)	(6,760)	(483)	(7.14)	(14,089)	(1,262)	(8.96)			

TUBERCULOSIS: CHART SHOWING DEATH-RATES PER MILLION (Registrar General)

GLASGOW and SCOTLAND, since 1881



## TUBERCULOSIS.

During 1951, the usual measures to deal with tuberculosis were reinforced by an intensification of the B.C.G. campaign including the opening of a new home for segregation of contacts. In addition, by the end of the year plans were well advanced for opening early in 1952 a new X-ray section within the Department where a mass miniature radiography unit will be installed.

*Incidence.*—The number of cases of pulmonary tuberculosis notified in 1951 was 2,207, a decrease of 239 from the total for 1950. The cases of non-pulmonary tuberculosis numbered 355, compared with 369 in 1950. The following table shows the totals for the years indicated :—

			Pulmonary.	Non-Pulmonary.	All Cases.
Average, 1935-39	...	...	1,650	657	2,307
1940	...	...	1,908	669	2,577
1941	...	...	2,066	661	2,727
1942	...	...	2,324	714	3,038
1943	...	...	2,778	735	3,513
1944	...	...	2,758	671	3,429
Average, 1940-44	...	...	2,367	690	3,057
1945	...	...	2,641	555	3,196
1946	...	...	2,809	508	3,317
1947	...	...	2,765	512	3,277
1948	...	...	2,775	373	3,148
1949	...	...	2,829	390	3,219
Average, 1945-49	...	...	2,764	468	3,231
1950	...	...	2,446	369	2,815
1951	...	...	2,207	355	2,562

It is again encouraging to note a marked decline in the number of pulmonary cases, the difference of 239 from the total in 1950 being another considerable decrease for the second successive year. The improvement must, however, be considered only as a stimulus to further efforts since the total of 2,207 is still 34 per cent. above the pre-war average.

The following table shows the distribution of all cases notified during 1951 according to age-groups and sex :—

Age-Groups.	Pulmonary.		Non-Pulmonary.	
	Males.	Females.	Males.	Females.
— 5 ...	51	54	56	41
—15 ...	76	99	44	41
—25 ...	307	444	28	56
—35 ...	189	238	12	25
—45 ...	187	107	10	10
—55 ...	166	48	2	7
—65 ...	126	35	5	6
+65 ...	65	15	6	6
	<u>1,167</u>	<u>1,040</u>	<u>163</u>	<u>192</u>

The same general distribution as in previous years is seen. When the decrease of 239 cases is distributed among the age-groups, and expressed as a percentage decline from the previous year's totals, the same trend as before is apparent, viz., the decrease is greatest in children, least in young adults, while an actual increase has occurred in the older age-groups. This is shown by the following table :—

#### PULMONARY TUBERCULOSIS, 1951.

Age-Groups.	MALE.			FEMALE.		
	No. of Cases, 1951.	Decrease from 1950.	Per Cent. Decrease from 1950.	No. of Cases 1951.	Decrease from 1950.	Per Cent. Decrease from 1950.
— 5	51	45	47	54	24	31
—15	76	28	27	99	31	24
—25	307	45	13	444	76	15
—35	189	32	14	238	13	5
—45	187	(+22)	(+13)	107	(+2)	(+2)
—55	166	1	1	48	(+5)	(+12)
—65	126	(+19)	(+18)	35	(+9)	(+35)
+65	65	(+1)	(+1)	15	2	12

GLASGOW.—CASES OF TUBERCULOSIS NOTIFIED AND DEATH RATE PER  
MILLION IN EACH MUNICIPAL WARD DURING 1951.

Ward	Pulmonary			Non-pulmonary		
	Cases		Death- rate	Cases		Death- rate
	Males	Females	Both Sexes	Males	Females	Both Sexes
Shettleston and Tollcross	58	48	849	9	12	260
Parkhead ... ..	20	17	905	1	4	—
Dalmarnock ... ..	42	29	320	9	10	173
Calton ... ..	32	26	725	6	8	40
Mile-End ... ..	34	50	603	6	8	50
Dennistoun ... ..	21	24	446	5	4	37
Provan ... ..	35	33	801	5	4	45
Cowlairs ... ..	31	24	486	6	7	74
Springburn ... ..	26	36	670	5	8	61
Townhead ... ..	50	41	517	9	12	61
Exchange ... ..	21	20	856	2	9	61
Anderston ... ..	28	39	836	5	3	35
Park ... ..	33	24	429	4	6	129
Cowcaddens ... ..	40	30	785	4	5	149
Woodside ... ..	34	32	798	3	4	114
Ruchill ... ..	51	62	952	9	6	111
North Kelvin ... ..	21	15	388	3	6	39
Maryhill ... ..	28	24	331	1	5	—
Kelvinside ... ..	8	10	203	3	4	—
Partick (East) ... ..	13	19	223	2	4	45
Partick (West) ... ..	25	16	749	1	3	151
Whiteinch ... ..	16	19	524	4	5	131
Yoker ... ..	26	17	601	3	4	67
Knightswood ... ..	14	18	1,042	3	1	58
Hutchesontown ... ..	33	26	582	6	2	97
Gorbals ... ..	48	40	495	7	5	28
Kingston ... ..	31	38	603	1	5	113
Kinning Park ... ..	33	16	685	5	7	108
Govan ... ..	35	40	774	5	9	201
Fairfield ... ..	41	16	594	3	4	127
Craigton ... ..	33	31	498	6	3	—
Pollokshields ... ..	40	32	689	6	2	133
Camphill ... ..	12	11	402	1	3	45
Pollokshaws ... ..	40	59	866	4	4	153
Govanhill ... ..	34	17	501	5	3	77
Langside ... ..	19	13	408	—	—	—
Cathcart ... ..	14	11	323	4	1	185
Institutions ... ..	42	17	—	2	2	—
Harbour ... ..	5	—	—	—	—	—
Total for City ...	1,167	1,040	637	163	192	90



There is, however, one notable difference from 1950, viz., the relatively very large decrease in children below five years of age, amounting to nearly one-half (47 per cent.) in males and nearly one-third (31 per cent.) in females. In 1950, the corresponding decreases were only 8 per cent. and 17 per cent. respectively.

*Mortality.*—The total number of deaths from tuberculosis in 1951 was 792, of which 694 were due to pulmonary tuberculosis and 98 to non-pulmonary. These totals signify a further fall in the death-rate, the trend of which is shown in the following table :—

#### DEATH RATE PER MILLION.

Year.	Pulmonary.	Non-Pulmonary.	All Forms.
1946	1,102	225	1,327
1947	1,066	224	1,290
1948	1,142	135	1,277
1949	1,028	129	1,157
1950	874	118	992
1951	637	90	727

*Institutional Treatment.*—The subjoined table shows the numbers of patients in the categories noted who were admitted during the year for treatment in institutions and who were in residence at the end of the year, along with the number who died.

#### INSTITUTIONAL CASES.

	In Residence on Jan. 1	Admitted during 1951	Discharged during 1951	Died	In Residence on Dec. 31
Respiratory					
Adults—Male	483	887	752	125	493
Female	608	1,215	1,069	69	685
Children—Male	84	95	96	4	79
Female	97	152	160	9	80
Non-Respiratory					
Adults—Male	88	102	101	9	80
Female	112	195	205	7	95
Children—Male	103	81	70	2	112
Female	80	67	68	1	78
	<u>1,655</u>	<u>2,794</u>	<u>2,521</u>	<u>226</u>	<u>1,702</u>

The numbers are generally similar to the totals for 1950. There has been a slightly increased turnover, no doubt partly due to the selection for admission of cases likely to respond to special forms of treatment along with the rapid clinical improvement effected by chemotherapy either alone or combined with surgery. The most notable difference, probably for the same reasons, is in the number of deaths, the total of 226 showing a sharp decline when compared with the totals of 321 for 1950 and 351 for 1949.



## B.C.G. VACCINATION.

The scheme of B.C.G. vaccination against tuberculosis made considerable progress during 1951, its first complete year of operation. There was a great increase in the number of persons vaccinated, and Millbrae, the third home of its type, was opened to act as a segregation unit for contacts.

Formerly a private maternity home, Millbrae was purchased in 1950 and after renovation and refitting was opened for its present use on 11th April, 1951. The home, essentially a large three-storied house within its own grounds pleasantly situated in a quiet residential southern suburb, already had certain advantages which lent themselves readily to adaptation. The ground floor is devoted to new-born infants and forms a small isolation unit of its own. The upper floors consist of dormitories and playrooms for older infants and toddlers up to two years, and also staff-rooms. The total accommodation was originally 29 but was later increased to 34, consisting of 15 cots for new-born infants on the ground floor, and 19 cots upstairs for older infants and toddlers. The opening of Millbrae was a welcome and useful addition to the facilities for B.C.G. vaccination and the temporary accommodation for new-born infants in Scotstoun House was thereafter made available for other purposes.

The total number of vaccinations performed in all groups in 1951 was 1,308 compared with 435 in 1950. The number in each group and their location are as shown :—

## B.C.G. VACCINATIONS, 1951.

	<i>Group.</i>		<i>Centre.</i>		<i>Vaccinations</i>
<i>Indoor.</i>	Contacts ...	...	Moffat Street	...	138
	Contacts ...	...	Carnbooth	...	82
	Contacts ...	...	Millbrae ...	...	36
	New-born Infants		Scotstoun House		23
	New-born Infants		Millbrae ...	...	51
<i>Outdoor.</i>	Contacts ...	...	Cochrane Street		501
	Contacts ...	...	Baird Street	...	167
	Nurses ...	...	Hospitals	...	212
	Medical Students		University	...	81
	Others ...	...	...	...	17
Total Vaccinations ...					1,308

This number is a considerable advance on the total of 435 vaccinations during the last eight months of 1950. Since 1950, therefore, 1,743 persons in Glasgow have been by this means protected against tuberculosis. By itself this constitutes no mean achievement considering the additional work involved and its assimilation into the former routine. But two more encouraging features are apparent; it is certain that the rate of vaccination will continue to increase, and of those already protected, 70 per cent. (1,228 out of 1,743) have been family contacts of tuberculosis, the group in which protection may be expected to yield the greatest dividends.

*Complications.*—In only 13 instances or about 1 per cent. was vaccination followed by any complication of note. In six cases, this consisted of a slight local abscess with some discharge, and in seven there was some swelling of the associated lymph glands. In most cases, the condition was transient, and, in at least two, it was almost certainly due to neglect at home. All cases proved amenable to treatment and in no instance was there any pain, pyrexia or general upset. It seems clear, therefore, that initial impressions of the harmless nature of B.C.G. vaccine have been reinforced by further experience in 1951.

# VENEREAL DISEASE.

The most prominent feature of the year was the continued rapid reduction in the incidence of acute syphilis in both males and females. The reduction was also evident in the incidence of congenital syphilis and in the percentage of pre-natal blood tests shown as positive. There was also a decrease in new cases of acute gonorrhoea in males to a figure below that prevailing in 1938.

The reduction in the incidence of acute syphilis has been carried into 1952 and in some months only one or no female case of acute syphilis attended the centres in the city.

The figures for the incidence of acute venereal disease during the years 1938 to 1951 are shown in the following table :—

## NEW CASES OF VENEREAL DISEASE FOR THE YEARS 1938-1951.

	Year.	Acute Syphilis.		Acute Gonorrhoea.	
		Males.	Females.	Males.	Females.
	1938	250	124	1,426	157
War Years	1939	293	118	1,358	143
	1940	465	144	1,476	165
	1941	671	279	1,720	246
	1942	778	395	1,536	308
	1943	671	368	1,323	407
	1944	454	262	1,231	406
	1945	365	252	1,301	398
	1946	687	356	2,463	449
	1947	597	247	2,164	305
	1948	412	181	2,041	238
	1949	341	128	1,559	142
	1950	201	97	1,417	203
	1951	105	32	1,280	169

Acute syphilis in males is now just over half the figure for 1950 and 58 per cent. below the 1938 incidence. In the case of females it is only one-third of the figure for 1950 and 74·2 per cent. below that ruling in 1938.

The reduction in syphilis has not been shown in acute gonorrhoea which continues at a rate equal to or just below the 1938 figure. In

males, the number of cases of acute gonorrhoea during the year 1951 was 10 per cent. below the incidence in 1938.

The trend in acute gonorrhoea is also illustrated by the number of new patients attending the centres for the first time which shows a slight decrease, as does also the number of patients attending the centres suffering from non-venereal conditions. The total new and transferred-in cases attending the centres for the first time for the years 1938 to 1951 are shown in the following table :—

NEW AND TRANSFERRED-IN CASES OF VENEREAL DISEASE  
ATTENDING THE CENTRES FOR THE FIRST TIME.

Year.					Total New Cases.	Transferred In.
1938	...	...	...	...	5,189	245
1939	...	...	...	...	4,724	189
1940	...	...	...	...	5,021	219
1941	...	...	...	...	5,891	441
1942	...	...	...	...	6,344	642
1943	...	...	...	...	7,740	853
1944	...	...	...	...	6,544	735
1945	...	...	...	...	6,582	619
1946	...	...	...	...	9,937	1,495
1947	...	...	...	...	8,181	570
1948	...	...	...	...	7,554	818
1949	...	...	...	...	6,678	648
1950	...	...	...	...	6,185	555
1951	...	...	...	...	4,947	445

During the years 1941 to 1951 the attendance of patients suffering from non-venereal conditions was as follows :—

ATTENDANCE OF PATIENTS SUFFERING FROM NON-VENEREAL  
CONDITIONS DURING YEARS 1941-1951.

Year.			Males.	Females.	Total.
1941	...	...	880	246	1,126
1942	...	...	1,058	398	1,456
1943	...	...	2,002	708	2,710
1944	...	...	1,656	721	2,377
1945	...	...	1,674	799	2,473
1946	...	...	3,027	650	3,677
1947	...	...	2,458	547	3,005
1948	...	...	2,472	477	2,949
1949	...	...	2,402	470	2,872
1950	...	...	2,248	440	2,688
1951	...	...	1,707	360	2,067

The attendances for 1951 are still considerably above the 1941 level.

Contact-tracing work is carried out by the staff of the male *ad hoc* centres and by the health visitors attached to the female centres but the statistics shown in the next table cannot be regarded as satisfactory :—

#### CONTACT-TRACING AND FOLLOW-UP OF SOURCES OF INFECTION

##### *Referred by Male Clinics*

		Wives		Consorts.	
		Number.	Percentage.	Number.	Percentage.
Attended ...	...	96	91·4	47	58·7
Did not attend ...	...	9	8·6	33	41·3
		<hr/> 105		<hr/> 80	

Total Referred, 185 ; Total attended, 143—77·8 per cent.

##### *Referred by Female Clinics.*

							Husbands and Consorts.	
							Number.	Percentage.
Attended ...	...	...	...	...	...	...	11	58·7
Did not attend ...	...	...	...	...	...	...	8	41·3
Total Referred							<hr/> 19	

*Syphilis.*—The number of male patients suffering from acute syphilis coming to the clinics for the first time in 1951 was 105 which compares with 201 in 1950, 341 in 1949, and 412 in 1948. Acute syphilis in females decreased from 97 in 1950 to 32 in 1951.

The number of patients suffering from late syphilis decreased to 212, as compared with 293 in 1950 and 323 in 1949.

In 1938, 467 new cases of old syphilis attended the centres. As in gonorrhoea, the newer methods of treatment, including the shorter courses, have permitted the more complete treatment of acute syphilis and reduced very considerably the likelihood of the development of the later manifestations. On the other hand, the experimental use of penicillin for the treatment of acute syphilis in the services may result in a rise in late syphilis in the coming years.

As already mentioned, the incidence of congenital syphilis has decreased, both in "All Cases" and in "Cases under One Year." The rate per 1,000 live births is a record low figure but continued efforts are required to persuade ante-natal patients found to be suffering from syphilis to undergo treatment.

#### CONGENITAL SYPHILIS.

Year.		All Cases.	Cases—1 Year.	Rate per 1,000 Live Births.
1922	...	1,023	335	12·8
1927	...	551	119	5·0
1932	...	240	72	3·2
1937	...	177	36	1·6
1941	...	67	15	0·75
1942	...	71	27	1·3
1943	...	97	32	1·4
1944	...	83	29	1·3
1945	...	72	32	1·6
1946	...	72	27	1·1
1947	...	80	25	0·97
1948	...	60	28	1·3
1949	...	52	22	1·1
1950	...	39	11	0·55
1951	...	24	5	0·30

During the year 1951, 9,796 pre-natal blood tests were carried out and 0·65 per cent. were found to be positive, a new low figure.

#### PRE-NATAL BLOOD TESTS.

Year.				Number.	Percentage Positive.
1925	...	...	...	—	4·9
1930	...	...	...	1,749	2·8
1935	...	...	...	3,334	1·8
1940	...	...	...	8,714	1·3
1942	...	...	...	10,265	1·18
1943	...	...	...	11,067	1·7
1944	...	...	...	10,260	1·3
1945	...	...	...	10,853	1·18
1946	...	...	...	13,946	1·23
1947	...	...	...	13,250	1·46
1948	...	...	...	12,692	0·96
1949	...	...	...	10,497	0·83
1950	...	...	...	10,692	0·70
1951	...	...	...	9,796	0·65

The number of blood tests, however, still represents only half the total births and the practice of ante-natal blood tests, both for the Rhesus Factor and for the Kahn and Wassermann Tests, must be extended, particularly in general practice.



*Gonorrhoea*.—The incidence of acute gonorrhoea in males has decreased from 1,417 in 1950 to 1,280 in 1951, and in females from 203 in 1950 to 169 in 1951. This latter figure exceeds the 1938 number by 12.

Chronic gonorrhoea in both males and females has continued at a low level and the following table shows a very pronounced fall in the incidence of chronic gonorrhoea in females since 1940, with the improved methods of treatment :—

#### CHRONIC GONORRHOEA IN FEMALES.

Year.	Number.	Year.	Number.
1938	312	1945	42
1939	266	1946	48
1940	229	1947	38
1941	119	1948	22
1942	88	1949	13
1943	93	1950	11
1944	54	1951	10

*Venereal Disease in Seamen*.—Seamen continue to form a fair proportion of the patients attending the three *ad hoc* male clinics—Black Street, Broomielaw and Bellahouston. Of the total new and transferred-in patients attending these clinics, 24·7 per cent. of those suffering from early syphilis and 15·1 per cent. of those suffering from acute gonorrhoea were seamen.

#### BLACK STREET, BROOMIELAW AND BELLAHOUSTON CLINICS

##### NEW AND TRANSFERRED-IN PATIENTS.

##### PROPORTION OF SEAMEN TO TOTAL CASES.

Early Syphilis.				Acute Gonorrhoea.			
	All.	Seamen.		All.	Seamen.		
1939	265	54	20·4%	1,133	75	6·6%	
1940	403	133	33·0%	1,210	224	18·5%	
1941	793	434	54·7%	1,671	539	32·3%	
1942	1,082	589	54·4%	1,543	532	34·5%	
1943	1,149	577	50·2%	1,393	436	31·3%	
1944	831	452	54·3%	1,356	428	31·6%	
1945	679	228	33·6%	1,478	370	25·0%	
1946	1,264	164	13·0%	3,070	435	14·2%	
1947	872	166	19·0%	2,340	330	14·1%	
1948	614	106	17·2%	2,152	294	13·7%	
1949	461	120	26·0%	1,646	267	16·2%	
1950	267	77	28·8%	1,477	203	13·7%	
1951	162	40	24·7%	1,347	204	15·1%	

*In-Patients.*—In-patient treatment is still available and is utilised largely for patients who require indoor treatment for sociological reasons. During the year 200 patients were treated in hospital, compared with 234 in 1950 and 694 in 1943. During 1951 the number of male patients admitted to Belvidere Hospital was 54, a decrease of 25 as compared with the previous year. Female patients admitted to Baird Street Auxiliary Hospital and Ruchill Hospital decreased from 149 in 1950 to 142 in 1951. The following table shows the admission of patients to institutions for the treatment of venereal disease :—

TOTAL NUMBER OF PATIENTS ADMITTED FOR IN-PATIENT TREATMENT.

	Sex.	Primary Syphilis D.G. + W.R. -	Primary Syphilis W.R. +	Secondary Syphilis.	Latent Syphilis. (1st year).	All Later Stages.	Congenital Syphilis.	Extra-genital Infection.	Acute Gonorrhoea.	Chronic Gonorrhoea.	Soft Chancre.	Non-Specific Venereal Disease.	Non-Venereal	Total Admissions.	Aggregate Days' Residence.	Average Days' Residence.
Belvidere Hospital	M.	3	3	3	1	19	—	—	4	—	3	16	2	54	1,964	36
Baird Street	M.	—	—	—	—	—	5	—	—	—	—	—	6	11	1,046	95
	F.	—	7	4	1	5	2	—	9	3	—	2	13	46	2,337	50
Ruchill Hospital	M.	—	—	—	—	—	2	—	—	—	—	—	2	4	1,143	285
	F.	—	5	8	—	35	7	—	12	1	2	4	7	81	4,165	51
Other Hospitals	M.	—	—	—	—	—	2	—	—	—	—	—	—	2	53	26
	F.	—	—	—	—	—	2	—	—	—	—	—	—	2	118	59
Totals		3	15	15	2	59	20	—	25	4	5	22	30	200	10,826	54.1

*Attendance of Patients.*—Patients attending for the first time at the various centres numbered 4,947, compared with 6,185 in 1950. There were 54,994 attendances of new and old patients and 200 patients were admitted for in-patient treatment, 26 being admitted directly without previous attendance at a clinic. The *ad hoc* clinics dealt with 98.8 per cent. of all acute venereal disease coming to the diagnostic and treatment centres. The following table summarises the attendance of new patients at the various centres :—

	<i>Ad Hoc</i> Treatment Centres		Glasgow :	
	Males.	Females.	All Centres.	
Acute Syphilis (includes Primary, Secondary and Latent in the First Year of Infection) ... ..	102	26	137	
Acute Gonorrhoea ... ..	1,277	162	1,449	
Total Acute Venereal Disease ...	1,379	188	1,586	
Late and Congenital Syphilis ... ..	90	42	236	
Chronic Gonorrhoea ... ..	11	10	21	
Total Chronic Venereal Disease ...	101	52	257	
Other Diseases, including Soft Sore, Septic Balanitis, etc. ... ..	933	36	1,037	
Non-Venereal ... ..	1,620	298	2,067	

*Incidence of Jaundice.*—The incidence of jaundice in the course of treatment of patients suffering from syphilis has almost disappeared. During the year, out of 102 cases of early syphilis attending the *ad hoc* centres, one developed jaundice compared with four persons out of 102 cases of early syphilis in 1950.

No cases of late syphilis developed jaundice.

*Follow-up of Defaulters.*—The health visitors and the senior attendants at the male centres continue to follow-up defaulters by letters and personal visits, resulting in a proportion of defaulters resuming treatment. During the year the health visitors visited 1,198 female patients on 1,361 occasions and persuaded 74·9 per cent. of the patients to resume treatment. The wrong name and address had been given by 57 persons. In the follow-up of the male patients, 1,906 follow-up letters were sent to 1,275 patients who defaulted during treatment and 61·8 per cent. of the patients resumed treatment. On 285 occasions the wrong name and address had been given. These results are less satisfactory than in previous years and may be indicative of a group of patients who are more resistant than formerly to persuasion.

## SECTION V.

### MENTAL SERVICES

Under the National Health Service (Scotland) Act, 1947, Local Authorities were relieved of the responsibility for the provision of institutional accommodation for certified mental patients and mental defectives, this becoming the responsibility of the Regional Hospital Boards. When certified mental patients are boarded-out under guardianship, this is deemed to be an extension of the hospital service, but arrangements have been made under which the placing and supervision of those boarded-out mental patients continues to be undertaken by the Department's officers, the cost being repaid by the Regional Hospital Boards.

The statutory visitation is undertaken by mental welfare officers, and the medical visitation is undertaken within the city area by four full-time medical officers attached to the Department and outwith the city area by local general practitioners who are appointed by the Department to undertake this duty and are paid agreed fees for these statutory visits.

*Mental Defectives—Boarded-Out.*—The total number of mental defectives on the boarded-out roll at 31st December, 1951, was 1,249 as compared with 1,218 the previous year—an increase of 31. The number resident within the city was 980 compared with 949 in 1950.

The following are the statistics in respect of these cases :—

	City	Total
Number on Roll on 31st December, 1950 ...	949	1,218
New Cases added during year ... ..	91	103
	<hr/>	<hr/>
Taken off Roll by Death, Removal or Discharge ...	1,040	1,321
	60	72
	<hr/>	<hr/>
Remaining on Roll on 31st December, 1951 ...	980	1,249
	<hr/>	<hr/>

From time to time the Board of Control requests special reports on certain of these patients regarding their suitability for continued guardianship, removal to an institution or discharge. During 1951 these reports totalled 495, an increase of 90 over the previous year.

Under the Criminal Justice (Scotland) Act, 1949, Section 24, eleven convicted persons were classified as mentally defective and by order of the Sheriff placed under guardianship in private homes following arrangements made by this Department.

Petition for judicial orders for the placing of 17 defectives, where the relatives were not willing to make the necessary applications for their care, were presented to and granted by the Sheriff.

*Mental Patients—Boarded-Out.*—These are patients who, showing improvement after a period of treatment in a mental hospital, are allowed out on licence so that they may re-establish themselves by living and working in the community. They are visited quarterly by a medical officer, as are mental defectives. In the city this visitation is performed by the Department's own staff—outside the city by medical practitioners appointed for the purpose by the Department.

The total number of boarded-out mental patients on the roll at 31st December, 1951, was 134, of whom 33 were resident within the city. The total number of 134 represents a decrease of 22 from the previous year. Particulars are as follows :—

	City	Total
Number on Roll at 31st December, 1950	31	156
New Cases added during year	3	3
Cases transferred from Country Areas	2	—
	36	159
Taken off Roll	3	25
Remaining on Roll at 31st December, 1951	33	134

The causes of discharge of both mental defectives and mental patients are given below :—

Cause of Discharge	Mental Defectives	Mental Patients	Total
Death	16	8	24
Removal to Mental Hospitals	8	16	24
Removal to Institutions	21	—	21
Escaped	7	1	8
By Order of General Board of Control	20	—	20
	72	25	97



*Examination of Mental Patients re Certification, etc.*—The full-time medical staff of the Mental Services Section of the Department is also available for the examination within the city area and, where necessary, the placing in a suitable institution of patients referred by general practitioners. For this latter purpose they co-operate with the officers of the Regional Hospital Board. This service is a 24-hour one and it is interesting to note that 21·5 per cent. of the total cases seen occurred outwith normal hours.

The number of cases seen during the year classified according to the final decision made is shown in the table below :—

	Prisons		City		Totals		Grand Total
	M.	F.	M.	F.	M.	F.	
Fully Certified ...	75	20	109	231	184	251	435
Mental Observation ...	—	7	16	13	16	20	36
Not Certified ...	1	3	51	103	52	106	158
For M./D. Institution ...	—	—	7	4	7	4	11
Cancelled ...	—	1	15	11	15	12	27
	<u>76</u>	<u>31</u>	<u>198</u>	<u>362</u>	<u>274</u>	<u>393</u>	<u>667</u>

Of the above cases, 65·21 per cent. required full certification, as compared with 69·86 per cent. in 1950, while 5·39 per cent. were found suitable for mental observation wards as against 10·17 per cent. in 1950.

The cases certified in the prisons amounted to 21·83 per cent. of the total certified, the corresponding figure for 1950 being 28·01 per cent. In addition, 100 cases were examined in the city's general and special hospitals.

For all purposes the medical officers made throughout the year 6,703 visits.

#### RESULTS OF MENTAL EXAMINATION OF OLD PEOPLE.

(Persons aged 65 years and upwards).

	1951		1950	
	Cases	Percentage	Cases	Percentage
1. Total Mental Cases ...	656	—	511	—
2. Senile Cases Seen ...	271	41·3 (of 1)	149	29·3 (of 1)
Senile Cases Certified ...	154	56·8 (of 2)	84	56·3 (of 2)
Senile Cases Not Certified ...	117	43·2 (of 2)	65	43·6 (of 2)

It will be observed from the above that the total mental cases dealt with have increased by 145, and the senile cases by 122.



While it is interesting to note that the percentage of senile cases "certified" and "not certified" has remained virtually the same for both years, it is disturbing to find that the proportion of these cases to total cases has this year shown a marked upward tendency, being 41·31 per cent. of the total as against 29·35 per cent. for the previous year.

It would seem that the necessity for certification and admission to a mental hospital would not have arisen in many of these senile cases if they could have been admitted earlier to senile medical wards in a general hospital or other institution for the purpose.

In view of the alarming increase in this type of case, it is felt that the crux of the matter is that many of them could, and should, be dealt with before they deteriorate to the point when they require certification. It is therefore strongly urged that every effort should be made to secure accommodation for senile patients while they are still *medical* cases and before they become *mental* cases, and at the same time it should be remembered that mental hospital accommodation primarily intended for the treatment of psychotic conditions is being occupied by these senile patients. The whole problem requires urgent study with a view to the finding of a solution.

In this connection it is also recorded that the waiting list for accommodation in certified institutions is, unfortunately, growing. There appears to be little prospect of any additional beds being made available in the near future and it is a matter of concern that no provision can be made for even urgent cases.

## SECTION VI.

### BLIND PERSONS

During 1951 the work of the Regional Clinic was continued under the joint scheme for the West of Scotland prepared in accordance with the provisions of the Blind Persons Act, 1920, for although this Act was repealed by the National Assistance Act, 1948, a joint scheme prepared under the latter Act had not yet been agreed upon.

The number of patients examined for the first time was 716, while 85 were re-examined. The ophthalmologists attached to the clinic made, during 1951, 258 home visits. Of the total number of cases examined for the first time 489 were certified as being blind.

Applicants for certification were referred to the clinic by diverse agencies. The largest single source was the National Assistance Board who referred for examination 523 persons who had applied to them for increased assistance. The table below shows the source of candidates for certification :—

Applicants for increased National Assistance	...	...	523
Applicants for Registration as Blind Persons	...	...	154
Applicants for Blind Pension	...	...	23
Applicants for Technical Training	...	...	12
Applicants for Free Tramway Pass	...	...	1
Unclassified	...	...	3

Table A shows the age and sex distribution of the 716 persons examined for the first time. It will be seen that the heaviest incidence was in the later years of life and that amongst the certified group females considerably outnumbered males. This is in accordance with last year's findings while previously the sexes had been equally represented.

TABLE A

Age.	Certified			Not Certified		
	Males	Females	Total	Males	Females	Total
—1	—	1	1	—	—	—
1-4	4	1	5	1	—	1
5-15	4	1	5	—	1	1
16-29	8	9	17	10	5	15
30-39	9	4	13	3	4	7
40-49	13	18	31	8	7	15
50-59	25	31	56	12	15	27
60-69	43	67	110	23	22	45
70+	89	162	251	48	68	116
	195	294	489	105	122	227

Of the 716 new cases examined during the year, 283 were resident in the Glasgow area and 88 in Lanarkshire. The next largest single group was from the County of Stirling with 72 cases.

Table B shows the allocation among local authorities of applicants examined during 1951 in the area of the Joint Committee for the Blind :—

TABLE B

	Certified			Not Certified		
	Males	Females	Total	Males	Females	Total
Glasgow	57	114	171	52	60	112
Airdrie	3	1	4	—	3	3
Coatbridge	3	3	6	7	1	8
Hamilton	3	9	12	4	1	5
Motherwell & Wishaw	2	7	9	3	2	5
Rutherglen	2	3	5	—	—	—
Other Lanarkshire	28	33	61	9	18	27
Greenock	2	4	6	—	4	4
Paisley	11	9	20	6	4	10
Port Glasgow	2	1	3	1	—	1
Other Renfrewshire	6	8	14	2	7	9
Dumbarton	—	5	5	1	1	2
Clydebank	3	4	7	2	3	5
Other Dunbartonshire	5	9	14	2	2	4
Falkirk	7	8	15	2	—	2
Stirling	5	2	7	—	1	1
Other Stirlingshire	25	33	58	6	8	14
Ayr	3	4	7	1	2	3
Kilmarnock	3	2	5	1	—	1
Other Ayrshire	13	23	36	6	3	9
Argyll County	6	8	14	—	1	1
Bute County	1	1	2	—	—	—
Dumfries Burgh	5	3	8	—	1	1
Not stated	—	—	—	—	—	—
	195	294	489	105	122	227

As has already been mentioned, 85 cases were re-examined during the year. These were cases examined previously but, owing to some altered circumstances or following the person's own request, were reviewed during 1951.

*Follow-up Scheme.*—During the past few years a scheme has been in operation to follow up those patients examined by the Regional Clinic and considered by the examining surgeons as likely to benefit from further treatment. The scheme has been made possible by the co-operation of the Mission to the Outdoor Blind for Glasgow and the South-West of Scotland. The home teachers make special enquiries twice yearly regarding such patients and report progress. When operative or other treatment has been completed, the patient is re-examined and the improvement or otherwise noted. During the year the teachers investigated 70 cases certified blind with the following results :—

Treatment	No. of Cases	TREATMENT CARRIED OUT		TREATMENT NOT CARRIED OUT			
		Still Blind	Not now Blind	Died	Unwilling	Unfit	Others
Recommended	...	...	...	...	...	...	...
Surgical ...	62	5	2	6	22	18	9
Medical ...	8	5	1	2	—	—	—
	70	10	3	8	22	18	9
	==	==	==	==	==	==	==

The large group entitled in the table “unwilling” is composed mainly of elderly people who, owing to their advanced age, do not feel inclined to undergo an operation. The group “others” numbering 9 in the table consists of patients who for some medical reason are not yet ready for operative procedures, e.g., patients whose cataract has not yet “matured.”

TABLE C  
CAUSES OF BLINDNESS

The causes of blindness of the 489 cases certified blind during 1951 are shown in the following table :—

*Congenital and Undetermined—*

Congenital abnormalities and developmental defects	...	...	39
Tumour of globe and orbit	...	...	—
Myopia	...	...	53
Other errors of refraction	...	...	—
Glaucoma, primary	...	...	60
Cataract, primary	...	...	172
Other primary ocular defects (primary detachment)	...	...	6

*Infectious and Toxic—**(a) Exogenous :*

Ophthalmia neonatorum	...	...	...	...	...	...	...	4
Trachoma	...	...	...	...	...	...	...	1
Local septic infection of coats of eye	...	...	...	...	...	...	...	1
Other local specific infections (gonorrhoea)	...	...	...	...	...	...	...	1

*(b) Endogenous :*

Gonorrhoea	...	...	...	...	...	...	...	—
Syphilis, congenital	...	...	...	...	...	...	...	10
Syphilis, acquired, including not definitely congenital	...	...	...	...	...	...	...	4
Specific fevers (measles)	...	...	...	...	...	...	...	—
Meningitis (non-tuberculous), including cerebro-spinal fever	...	...	...	...	...	...	...	2
Tuberculosis	...	...	...	...	...	...	...	—
Phlyctenular and strumous, not definitely tuberculous	...	...	...	...	...	...	...	4
Septicaemia, acute	...	...	...	...	...	...	...	1
Septicaemia, chronic ; autotoxic, focal sepsis	...	...	...	...	...	...	...	34
Other general infections and organismal diseases	...	...	...	...	...	...	...	4

*Traumatic and Chemical—*

Birth trauma	...	...	...	...	...	...	...	—
Non-industrial trauma	...	...	...	...	...	...	...	1
Industrial trauma	...	...	...	...	...	...	...	2
War trauma	...	...	...	...	...	...	...	2
Trauma, category not ascertainable	...	...	...	...	...	...	...	—
Chemico-toxic, non-industrial (tobacco)	...	...	...	...	...	...	...	2
Scheduled industrial diseases (lead) (pyroxlin) (carbon bi-sulphide) (anilene) (phosphorus) (glass-blowers' cataract) (metal workers' cataract) (miners' nystagmus)	...	...	...	...	...	...	...	1
Sympathetic ophthalmia	...	...	...	...	...	...	...	2

*Systematic Diseases—*

Anaemia and blood diseases	...	...	...	...	...	...	...	—
Diabetes	...	...	...	...	...	...	...	17
Nephritis	...	...	...	...	...	...	...	2
Pregnancy	...	...	...	...	...	...	...	1
Vascular diseases including cerebral vascular lesions	...	...	...	...	...	...	...	48
Intracranial neoplasm	...	...	...	...	...	...	...	8
Other diseases of central nervous system	...	...	...	...	...	...	...	2
Functional disturbances	...	...	...	...	...	...	...	2
Other general diseases	...	...	...	...	...	...	...	2

<i>Not Ascertainable Definitely</i>	...	...	...	...	...	...	...	1
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Total	...	...	...	...	...	...	...	489
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The largest number is included in the category "Congenital and Undetermined" and the most important individual causes of blindness were cataract, glaucoma, myopia, vascular disease and congenital abnormality.

## SECTION VII.

## PORT HEALTH AUTHORITY

During the year 7,597 vessels, with a tonnage of 7,522,180, entered the port. Of these vessels, 1,299 with a tonnage of 4,034,791 arrived from foreign ports, while the balance of 6,298, with a tonnage of 3,487,389, arrived from coastwise ports. From overseas 752 vessels arrived from "infected ports," and the remaining 547 arrived from non-infected ports. Vessels arriving from Eire numbered 341.

Inspectors on duty at the Boarding Station at Greenock boarded 1,252 of the overseas vessels, and 45 vessels, which could not be boarded owing to adverse weather conditions, were "hailed" to ascertain the health of those on board and allowed to proceed up-river where they were boarded by the Glasgow staff.

Particulars of vessels arriving from foreign ports are given in the following table :—

## NATIONALITY OF VESSELS ARRIVING DURING 1951

Nationality					Ships	Crews	Passengers
British	...	...	...	...	917	47,887	1,086
Belgian	...	...	...	...	3	47	—
Chinese	...	...	...	...	1	50	—
Costa Rican	...	...	...	...	1	31	—
Cyprian	...	...	...	...	1	43	—
Danish	...	...	...	...	38	863	100
Dutch	...	...	...	...	54	621	1
Finnish	...	...	...	...	7	224	—
French	...	...	...	...	3	97	—
German	...	...	...	...	3	41	—
Greek	...	...	...	...	12	427	—
Honduran	...	...	...	...	3	47	—
Icelandic	...	...	...	...	10	398	967
Italian	...	...	...	...	21	673	2
Indian	...	...	...	...	7	437	—
Israelian	...	...	...	...	2	49	10
Liberian	...	...	...	...	3	85	—
Norwegian	...	...	...	...	61	1,783	6
Panamanian	...	...	...	...	29	1,028	2
Polish	...	...	...	...	1	40	—
So. African	...	...	...	...	4	221	—
Spanish	...	...	...	...	11	361	4
Swedish	...	...	...	...	54	1,566	3
Swiss	...	...	...	...	1	29	—
U.S.A.	...	...	...	...	52	2,868	29
Total	...	...	...	...	1,299	59,916	2,210



## TONNAGE OF VESSELS ARRIVING DURING 1951

Month.						No. of Ships.	Crews.	Net. Reg. Tonnage.
January ...	...	...	...	...	...	102	4,598	332,852
February ...	...	...	...	...	...	93	4,034	301,829
March ...	...	...	...	...	...	114	4,924	306,962
April ...	...	...	...	...	...	120	5,479	379,618
May ...	...	...	...	...	...	103	4,852	300,563
June ...	...	...	...	...	...	112	5,109	335,593
July ...	...	...	...	...	...	132	6,352	422,519
August ...	...	...	...	...	...	116	5,850	374,145
September ...	...	...	...	...	...	96	4,320	292,343
October ...	...	...	...	...	...	107	5,271	330,074
November ...	...	...	...	...	...	101	4,571	327,686
December ...	...	...	...	...	...	103	4,556	330,607
Total ...	...	...	...	...	...	1,299	59,916	4,034,791

## NATIONALITY OF SHIPS' CREWS ARRIVING DURING 1951

Month.	British.	Natives of India.	Chinese.	Other Nationalities on British Ships.	Other National- ities.	Total.	Passen- gers.
January ...	2,515	1,161	104	107	711	4,598	22
February ...	2,216	748	176	139	755	4,034	11
March ...	2,082	1,296	234	159	1,153	4,924	26
April ...	3,180	1,070	190	140	899	5,479	13
May ...	2,209	1,510	171	82	880	4,852	250
June ...	2,565	1,326	233	129	856	5,109	428
July ...	3,578	1,344	169	106	1,155	6,352	435
August ...	2,884	1,023	130	110	1,703	5,850	630
September ...	2,222	959	164	97	878	4,320	143
October ...	2,982	1,242	182	107	758	5,271	186
November ...	2,751	973	117	124	606	4,571	37
December ...	2,395	1,074	244	74	769	4,556	29
Total ...	31,579	13,726	2,114	1,374	11,123	59,916	2,210

## NUMBER OF SHIPS FROM FOREIGN PORTS AND IRISH FREE STATE DURING 1951.

Month.	FROM INFECTED PORTS.						FROM NON-INFECTED PORTS. Direct and Coastwise.				TOTAL.			From Irish Free State		
	Class " A "—Direct.			Class " B "—Coastwise.			Total " A " and " B."			From Foreign Ports.						
	Ships	Crews	Pass-engers	Ships	Crews	Pass-engers	Ships	Crews	Pass-engers	Ships	Crews	Pass-engers				
January	13	472	7	50	2,913	10	63	3,385	17	39	1,213	5	102	4,598	22	27
February	17	633	6	40	2,297	2	57	2,930	8	36	1,104	3	93	4,034	11	28
March	20	819	23	45	2,840	—	65	3,659	23	49	1,265	3	114	4,924	26	33
April	19	805	8	54	3,287	—	73	4,092	8	47	1,387	5	120	5,479	13	28
May	20	802	115	38	2,554	—	58	3,356	115	45	1,496	135	103	4,852	250	30
June	12	461	36	49	2,937	78	61	3,398	114	51	1,711	314	112	5,109	428	30
July	25	1,248	57	54	3,255	3	79	4,503	60	53	1,849	375	132	6,352	435	27
August	15	565	40	46	2,813	—	61	3,378	40	55	2,472	590	116	5,850	630	29
September	21	692	47	37	2,287	—	58	2,979	47	38	1,341	96	96	4,320	143	24
October	14	949	109	41	2,604	—	55	3,553	109	52	1,718	77	107	5,271	186	30
November	11	393	6	43	3,518	—	54	2,911	6	47	1,660	31	101	4,571	37	30
December	19	802	21	49	2,643	—	68	3,445	21	35	1,111	8	103	4,556	29	25
TOTAL	206	8,641	475	546	32,948	93	752	41,589	568	547	18,327	1,642	1,209	59,916	2,210	341

## INFECTIOUS DISEASES

There were no cases of plague, cholera, yellow fever, typhus fever or smallpox on any vessel arriving within the jurisdiction of the Port during the year.

The number of cases of other infectious diseases dealt with on vessels arriving at or berthed within the Port area showed a decrease in comparison with previous years.

An occurrence which is becoming more frequent is the bringing of native crews from India by air to join new vessels or to replace other crews whose term at sea has expired. In view of the brief period taken in arriving from an infected area, ship-owners have been requested to notify the Port Health Authority immediately if any sickness is reported in these crews.

## PORT SANITARY REGULATIONS (SCOTLAND), 1933 AND 1945

*Declaration of Health* —Article 13 of the above Regulations requires the master of a foreign-going vessel arriving from a foreign port to deliver a Declaration of Health on the prescribed form.

The Public Health Committee of the Brussels Treaty Organisation agreed that, with a view to applying uniform procedure in the respective countries for "arriving vessels," a Declaration of Health should not be required from any vessel which trades only between those countries and has not during the voyage called at a port outwith their boundaries. As a result of this agreement, which became effective on 1st March, 1951, vessels arriving within the area of the Port Health Authority and trading only within these limits are no longer requested to complete a Declaration of Health. Nevertheless, the state of health of all on board is ascertained from the Master.

The Mediterranean and Atlantic coasts of France are now included within these limits. Any vessel which arrives at the anchorage from this area and which has previously been to a port outwith the prescribed limits is requested to complete a Declaration of Health.

## CASES OF ILLNESS FOUND ON VESSELS ON ARRIVAL AT GLASGOW

Disease	Removed to Hospital	Sent Home	Referred to Clinic	Left on Board	Died	Total
Diphtheria ... ..	1	—	—	—	—	1
Dysentery ... ..	5	—	—	—	—	5
Erysipelas ... ..	1	—	—	—	—	1
Malaria ... ..	3	—	—	1	—	4
Mumps ... ..	1	—	—	—	—	1
Chickenpox ... ..	1	—	—	—	—	1
Tuberculosis ... ..	2	1	—	1	—	4
Trachoma ... ..	1	—	—	—	—	1
Pneumonia ... ..	12	—	—	—	—	12
Lobar Pneumonia ... ..	1	—	—	—	—	1
Pyrexia—Unknown Origin ... ..	1	—	—	—	—	1
Venereal Disease ... ..	1	—	51	1	—	53
Injuries ... ..	2	2	—	3	—	7
Non-Infectious Illnesses	38	2	—	5	—	45
Total ... ..	<u>70</u>	<u>5</u>	<u>51</u>	<u>11</u>	<u>—</u>	<u>137</u>

CASES OF ILLNESS REPORTED OCCURRING ON VESSELS DURING  
THE VOYAGE

Disease	How Disposed of
Stomach trouble ... ..	Landed at San Pedro, 12.2.51.
Measles and Mumps (4 measles, 1 mumps) ... ..	Landed at Liverpool.
Severe burns ... ..	Landed at Milford Haven
Heart failure ... ..	Died and buried at Santos.
Mental case ... ..	Landed at Oslo.
Mumps (2 cases) ... ..	Landed at Liverpool.
Heart Disease ... ..	Died and buried at Gothenburg, 16.4.51.
Heart failure ... ..	Died and buried ashore.
Heart failure (3) ... ..	Died and buried at sea (3).
Heart attack ... ..	Died—landed at Newport News, 31.7.51.
Cerebral haemorrhage ... ..	Died and buried at sea.
Measles (18 cases) ... ..	Landed at Rotterdam
Undiagnosed ... ..	Landed at Skagen.
Appendicitis ... ..	Landed at Greenock
Appendicitis ... ..	Landed at Tilbury.
V.D. ... ..	Landed at Malta, 20.12.51.
Tonsillitis ... ..	Landed at Liverpool.
Kidney trouble ... ..	Sent home to Germany.
Pain in legs ... ..	Landed at Tilbury.
Diarrhoea (4 cases) ... ..	Remained on board.
Injuries (7 cases) ... ..	Landed at Norfolk, Virginia.
Internal Haemorrhage ... ..	Died and buried at sea, 30.10.51.

## ALIENS ACT, 1920

*Medical Inspection of Aliens.*—There was a decrease in the number of vessels carrying alien passengers arriving at the Port, and also in the number of aliens. There were 60 vessels with 639 alien passengers on board, as compared with last year's figure of 85 vessels with 1,039 aliens.

Close co-operation was maintained with H.M. Immigration Officers in the examination of these persons. There were no rejections on medical grounds.

The following table shows the nationality and number of aliens :—

Belgian ... ..	2	Italian ... ..	4
Chinese ... ..	2	Norwegian ... ..	10
Danish ... ..	10	Non-European ...	1
Dutch ... ..	5	Polish ... ..	2
Finnish ... ..	2	Spanish ... ..	5
French ... ..	16	Swedish ... ..	13
German ... ..	3	Swiss ... ..	9
Greek ... ..	5	Stateless ... ..	5
Icelandic ... ..	459	American ... ..	85
Israelian ... ..	1		

## THE PARROTS (PROHIBITION OF IMPORT) REGULATIONS

(SCOTLAND), 1930

Twelve vessels arrived at the Port with birds on board prohibited under the above Regulations. The birds consisted of ten parrots and five budgerigars. Fourteen of the birds were detained on board the vessels, and signed declarations were obtained from their owners that they would not be landed in this country. One bird, a parrot, was permitted to land under special licence from the Department of Agriculture.

## RODENT CONTROL.

## THE PREVENTION OF DAMAGE BY PESTS ACT, 1949

*Application to Shipping.*—An Order in Council—the Prevention of damage by Pests (Application to Shipping) Order, 1951, made under Section 23 of the above Act, came into force on the 1st of October this year and extends the control of rodent infestation to classes of vessels not previously controlled by such legislation.



This Order applies the provisions of the Act relating to rats and mice, with appropriate modifications, to all classes of vessels calling at ports in Great Britain or operating within the limits of harbours and estuaries. For the purposes of the Order shipping falls into three categories :—

- (1) Vessels engaged in trading wholly or mainly within the limits of the harbour, estuaries, etc., and includes vessels used for the purpose of storage and any other vessel.

The provisions of Part I of the 1949 Act, in relation to rats and mice on land, are applied by Article 3 (1) of the Order, with certain modifications, and extend to this type of vessel. The local authority of the area in which the vessel is lying must enforce the Order. The onus has been placed on the owner or person having custody or control of the vessel to notify the local authority in writing of any substantial rat or mice infestation of a vessel. Rodent Control Certificates are not issued to this type of vessel.

- (2) Vessels engaged in trading *outwith* the ports of the United Kingdom (i.e., foreign-going vessels).

This class of vessel is granted a Deratization or Deratization Exemption Certificate issued by International agreement under the Port Sanitary Regulations (Scotland), 1933 and 1945, which is valid for a period of six months. These certificates are only issued at "approved ports," as recognised by the World Health Organisation.

- (3) Vessels engaged in trading between ports *within* the limits of the United Kingdom (i.e., coastal vessels).

This class of vessel has now been brought within the scope of the above Order, and if they are clear of rat and mice infestation they are issued with a form of certificate known as a Rodent Control Certificate, which is valid for a period of four months. If vessels have substantial evidence of rat or mice infestation, the certificate is not issued until appropriate action has been taken and the vessel reported as being clear. These Rodent Control Certificates may be issued by a Port Health Authority or by the Local Authority of the area within which the vessel may be lying at the time of inspection.

### RAT DESTRUCTION

The total number of rats destroyed during the year was 1,916. Of this total, 1,311 were destroyed on board vessels ; 952 as the result of fumigation ; and 359 by trapping methods. The remaining 605 rats were destroyed by trapping in the cargo-sheds and other premises within the dock area. The number of rats destroyed on coastal vessels was 229 ; trapping accounted for 121 and fumigation for 108.

A total of 287 rats were submitted to the City Bacteriologist for examination for *Bacillus Pestis*. All were reported negative.

The rat-searchers made 2,723 visits and revisits to vessels in the port area and 1,707 inspections of sheds and other premises within the dock area. One shed which was being used for the storage of grain was trapped repeatedly, resulting in the destruction of 44 rats



during the year. The owners of this shed have given an undertaking to carry out rat-proofing at an early date.

The practice of rat-proofing new vessels is playing a major part in reducing the degree of rat infestation; consequently the number of rats recovered after the fumigation of a vessel is very much reduced. One point which is being kept under observation, however, is the increase in the number of mice infestations on vessels which are relatively free from rats. Some vessels have been reported as having mice in all holds.

Particulars of the rats destroyed are given in the following table :—

Method of Destruction.		ON BOARD VESSELS							
		Infected Ports.				Non-Infected Ports.			
		R. Rattus		R. Norvegicus		R. Rattus		R. Norvegicus	
		M.	F.	M.	F.	M.	F.	M.	F.
HCN ...	...	456	266	—	—	141	89	—	—
Trapping ...	...	133	59	—	1	111	54	—	1
Total	...	589	325	—	1	252	143	—	1

CARGO SHEDS AND OTHER PREMISES					
R. Rattus			R. Norvegicus		Total
M.	F.		M.	F.	
382	201		16	6	605

After fumigation of vessels 546 dead mice were also recovered.

*Deratization and Deratization Exemption Certificates.*—The total number of certificates granted during the year was 390, seven less than last year's total. There were 84 deratization certificates issued after fumigation and 7 after trapping, making a total of 91, and the number of deratization exemption certificates issued to vessels reported as being clear of rat infestation was 299.

Rodent Control Certificates were issued to coastal vessels from the 1st October, the date on which the Order became operative. This section of the report, therefore, covers a period of three months only.

A total of 28 certificates were granted, 23 of these being exemptions, the vessels having been reported by the rat-searchers as clear of rat or mice infestation. Two certificates were issued to vessels after they had been subjected to deratization by HCN fumigation, and two to vessels in which trapping was sufficient to remove the infestation. One vessel was treated with poison baits and subsequently granted a certificate when no further evidence of rat infestation was found.

Of the International Certificates issued to foreign-going vessels, 34 were for new vessels ; 32 were deratization exemption certificates ; and two were deratization certificates, these two vessels having been subjected to HCN fumigation.

### INSECT DISINFESTATION

At the request of the Department of Agriculture, Insect Pest Infestation Section, three vessels, which were being fumigated with HCN to qualify for the deratization certificate, had concentrations of gas varying from 8 to 10 ounces per 1,000 cubic feet, with exposures varying from 8 to 12 hours for the destruction of food insect pests.

### HYGIENE IN CREWS' QUARTERS, ETC.

Inspection and re-inspection of vessels arriving in Port resulted in the discovery of 839 defects, the majority of which were remedied before the departure of the vessels for other ports. In 21 instances where repairs had not been completed before sailing, communications were sent to the authorities concerned at the next port of call in the United Kingdom. One hundred and seventeen intimations in terms of the Public Health (Scotland) Act, 1897, were served and 166 verbal intimations were given in respect of defects discovered on board 283 vessels.

The following table shows the type of defects and the number and nationality of vessels on which they were discovered :—

<i>General Neglect—</i>					Coasters.	Foreign Arrivals.	Totals.
Drinking Water Tanks	...	...	...	...	—	1	1
Accumulations of Garbage	...	...	...	...	—	39	39
Gear in Sleeping Compartments	...	...	...	...	—	6	6
					—	46	46
<i>Structural Defects—</i>							
Ports for Deadlights leaking	...	...	...	...	10	21	31
Deckheads leaking	...	...	...	...	—	38	38
Heating Apparatus defective	...	...	...	...	—	8	8
Floors broken	...	...	...	...	—	9	9
Lighting defective	...	...	...	...	—	—	—
Ventilation defective	...	...	...	...	—	—	—
Food Locker Doors broken	...	...	...	...	—	14	14
Steampipes leaking	...	...	...	...	—	9	9
					10	99	109

<i>Wash Places and Water-Closet Compartments—</i>						Foreign Arrivals.	Totals.
Seats broken or missing ... ..	...	...	...	—	—	25	25
Doors broken or defective ... ..	...	...	—	—	—	15	15
W.C. Basins broken ... ..	...	...	...	—	—	—	—
Lighting defective ... ..	...	...	...	—	—	—	—
Ventilation defective ... ..	...	...	...	—	—	1	1
Wash Basins broken ... ..	...	...	...	—	—	4	4
Soilpipe or Storm Valve defective ... ..	...	...	—	—	—	10	10
Floors broken ... ..	...	...	...	—	—	5	5
				—	—	60	60

*Functional Neglect—*

Paintwork dirty ... ..	...	...	...	—	—	48	48
Floors and Woodwork dirty ... ..	...	...	...	2	—	38	40
Tables and Benches dirty ... ..	...	...	...	1	—	46	47
Alleyways dirty ... ..	...	...	...	—	—	40	40
Food Lockers dirty ... ..	...	...	...	4	—	45	49
Verminous condition ... ..	...	...	...	—	—	173	173
Galleys dirty ... ..	...	...	...	—	—	23	23
Scuppers choked ... ..	...	...	...	3	—	27	30
Accumulation of Rubbish ... ..	...	...	...	—	—	17	17
Beds and Bedding dirty ... ..	...	...	...	—	—	3	3
				10	—	460	470

*Wash Places and Water-Closet Compartments—*

Troughs of W.C. Basins foul or choked ... ..	...	...	—	—	—	14	14
Floors or Woodwork dirty ... ..	...	...	...	—	—	22	23
Paintwork dirty ... ..	...	...	...	—	—	35	35
Scuppers choked ... ..	...	...	...	3	—	31	34
Flushing Apparatus defective ... ..	...	...	...	—	—	21	21
Wash Basins dirty or choked ... ..	...	...	...	—	—	26	26
				3	—	150	153
				23	—	816	839

NUMBER AND NATIONALITY OF VESSELS ON WHICH DEFECTS WERE  
DISCOVERED

Nationality.						No. of Arrivals.	No. Showing Defects.
Argentinian	...	...	...	...	...	—	—
British	...	...	...	...	...	917	240
Belgian	...	...	...	...	...	3	—
Costa Rican	...	...	...	...	...	1	1
Chinese	...	...	...	...	...	1	—
Cyprian	...	...	...	...	...	1	—
Danish	...	...	...	...	...	38	1
Dutch	...	...	...	...	...	54	—
Faroese	...	...	...	...	...	—	—
Egyptian	...	...	...	...	...	—	—
Finnish	...	...	...	...	...	7	1
French	...	...	...	...	...	3	—
German	...	...	...	...	...	3	—
Greek	...	...	...	...	...	12	3
Honduran	...	...	...	...	...	3	—
Icelandic	...	...	...	...	...	10	—
Indian	...	...	...	...	...	7	1
Italian	...	...	...	...	...	21	1
Israelian	...	...	...	...	...	2	—
Iranian	...	...	...	...	...	—	—
Liberian	...	...	...	...	...	3	1
Norwegian	...	...	...	...	...	61	5
Panamanian	...	...	...	...	...	29	1
Polish	...	...	...	...	...	1	—
Portuguese	...	...	...	...	...	—	—
Russian	...	...	...	...	...	—	—
South African	...	...	...	...	...	4	—
Spanish	...	...	...	...	...	11	1
Swedish	...	...	...	...	...	54	2
Swiss	...	...	...	...	...	1	1
Turkish	...	...	...	...	...	—	—
U.S.A.	...	...	...	...	...	52	4
Uruguayan	...	...	...	...	...	—	—
Yugo Slav	...	...	...	...	...	—	—
						<u>1,299</u>	<u>263</u>

*Rags, Hair, Hides and Bones.*—The following table shows the amount of imported rags, hair, hides and bones, the number of shipments and the country of origin :—

Source of Origin	No. of Ships	Rags. No. of Bundles	No. of Ships	Hair Various. No. of Bundles	No. of Ships	Hides Various. No. of Bundles	No. of Ships	Bones. No. of Bags
Africa ...	1	36	—	—	4	72	2	9,297
Australia ...	—	—	1	6	1	124	—	—
Canada ...	—	—	2	2,000	—	—	—	—
Cyprus ...	1	1,408	—	—	—	—	1	732
Egypt ...	15	10,821	—	—	—	—	2	1,821
Europe ...	16	3,534	4	232	9	1,034	2	1,215
India ...	—	—	—	—	20	1,054	25	28,444
Malaya ...	—	—	—	—	—	—	1	1,000
New Zealand ...	—	—	—	—	2	48	—	—
So. America ...	—	—	1	70	—	—	2	40,954
United States ...	—	—	22	12,898	3	130	—	—

*Anthrax.*—Four specimens of cattle hides from a consignment from South America and three from a consignment from France, also six specimens of goat-skins from two consignments from East Africa, and three from a consignment from India were submitted to the City Bacteriologist, who reported the cattle hides as free from *B. anthracis*. Six specimens of the goat-skins were reported free from *B. anthracis*, while two specimens from one consignment and one from another, all from East Africa, were reported as positive for *B. anthracis*.

No cases of anthrax were reported among the persons engaged on the discharge of the above articles.

#### IMPORTED FOOD REGULATIONS.

During the year approximately 627,496 tons of foodstuffs arrived at the port from overseas. In addition, 35,377 tons arrived on coasting vessels trading within the British Isles and Eire. Of the total quantity shown above 5,602 cwt. 1 qr. were found unsuitable for human consumption and were disposed of either for animal feeding or technical purposes or were destroyed.

Of the 181 samples of foodstuffs submitted to the City Analyst, 29 were reported unsatisfactory. Five samples were submitted for bacteriological examination, one of which was found to be unsatisfactory. This sample consisted of dried beans which were infested with weevils.

The provisions of the Public Health (Imported Food) Regulations were applied to food cargoes arriving at the port, and damaged consignments were detained at the quayside or removed to storage and held there until a complete examination could be carried out. In general, the amount of damage was slight, but some consignments required a complete examination which entailed a great deal of time and labour. Condemned foodstuffs were removed to the Corporation destructors, but commodities which could be used for the purpose of animal feeding-stuffs were released for that purpose on receipt of a notice giving the name and address of the purchaser and confirmation of his knowledge of the purpose for which the commodity was to be used. If the commodity were going to an area outwith Glasgow, the facts of the case were sent to the local authority of that area.

A consignment of 500 cases of apricot nectar which was landed was found to contain a considerable number of "blown" tins, and was removed to store for a complete examination. Of the total number, 371 tins were removed for destruction, and the remainder were released, the contents having been reported as satisfactory.

Six hundred and fifty-eight stems of bananas were condemned and removed to the destructor. They were unfit for storage or for further transportation.

Two hundred and fifty-three cases of fruit-cake, which had been removed to store for further examination, were sold for animal feeding-stuffs.

Damaged grain was allocated for animal feeding-stuffs. A quantity of maize was released for the manufacture of starch, and quantities of flour for the manufacture of pastes.

Two consignments of canned evaporated milk which were landed at Yorkhill were found to have suffered extensive damage. The cartons were wet and broken and many of the tins were crushed, rusted and leaking, and in some cases blown. All the damaged cartons were turned-over at the quayside and repacked with sound tins. A considerable number of dented and unlabelled tins, the contents of which were perfectly sound, were removed to a Ministry of Food Depot at Leeds for reconditioning.

A consignment of canned soups from Australia had suffered extensive damage by water and oil, and the whole consignment was turned-over at the quay. Many of the tins were blown, crushed,



rusted and leaking, and these were removed for destruction. The remainder of the consignment was released for human consumption, having been sampled and reported as satisfactory by the City Bacteriologist and the City Analyst.

A large consignment of butter-beans was landed from a vessel from South Africa and was removed to various stores in the city for further examination. Heavy weevil infestation had rendered the contents of some of the bags totally unfit for human consumption. The bags were divided into three categories—"sound," "pickings" and "animal feeding"—and each bag was judged on its merit and dealt with accordingly. The sound beans were released for human consumption and those coming under the animal-feeding grade were released for that purpose. The "pickings," however, proved a problem. The intention was to recover the sound beans by hand or machine-picking, but owing to the cost involved and the limited weight which could be dealt with in a day, the plan was cancelled and the bulk of this grade was sent for animal feeding-stuff.

An interesting point occurred during the early part of the year with regard to the use of insecticides in foodstuffs. Examination of a cargo of Madagascar butter-beans revealed a fine white powder which was reported to be an insecticide of the "inert-dust" type. Samples of the beans were taken and submitted to the City Analyst for a report, together with sievings from a sack of beans, with a request to investigate for the presence of D.D.T. The report stated that the sievings consisted of mineral matter 71·87 per cent., organic matter 28·13 per cent.; arsenic was present at two parts per million, and D.D.T. and B.H.C. (Gammexane) were absent. The composition of the mineral matter appeared to consist essentially of silica and silicate, which confirmed the statement that the insecticide was of the "inert-dust" type. The City Analyst's report on six samples of the beans showed the absence of D.D.T., B.H.C. and arsenic, and that the amount of silica washed from the surface of the beans varied from 0·03 to 0·14 per cent.

..

Information was received from the Commercial Counsellor at the French Embassy in London that a Government Order prohibits the export from Madagascar of dried pulses, maize and dried manioc which have been attacked by beetle or weevil, and all such products intended for export, together with the packing material, must be disinfested by a toxic gas or an insecticide.

Two groups of insecticides are used—(a) Exterminate, and (b) products with a D.D.T. basis. The former can be used for dusting the packing material or mixing with the produce. The latter, however, may only be used on the outside wrapping and on no account may be mixed or allowed to come into contact with the produce.

Five different insecticides are used under group (a), but the one used on this consignment was Levilite St. Gobain (Silica Gel) which has the effect of making the natural wax layer covering the weevil permeable to water. In a dry atmosphere, therefore, the water which would naturally remain in the weevils is drawn out causing their death.

The question of the arsenical content of Levilite St. Gobain had been discussed at a meeting in London owing to the widely different figures produced in samples which showed arsenic as present to a greater degree than that normally considered reasonable for foodstuffs. The danger lay in the accumulation of powder at the bottom of the bag, which could be removed by the sifting of the beans, and it was agreed that the beans should be cleared before distribution.

The tables which follow show the character and quantity of those foodstuffs (a) imported direct, and (b) arriving coastwise.

TABLE A

Article				Weight Tons Cwts.		Article				Weight Tons Cwts.	
Apples	...	...	...	13,888	11	Fats	...	...	...	93	15
Acids	...	...	...	8	5	Farinaceous Foods	...	...	...	1,240	13
Bananas	...	...	...	3,208	—	Fish (Canned)	...	...	...	989	14
Barley	...	...	...	28,573	—	Fruits (Canned)	...	...	...	4,677	17
Beans	...	...	...	1,473	12	Fruits (Dried)	...	...	...	4,621	10
Biscuits	...	...	...	465	6	Fruit Juices	...	...	...	631	13
Butter	...	...	...	6,006	18	Fruit Pulp	...	...	...	791	9
Cake Mixture	...	...	...	881	7	Fruit Cake	...	...	...	76	—
Checsc	...	...	...	6,638	5	Flour	...	...	...	42,956	8
Cocoa	...	...	...	200	—	Gelatine	...	...	...	45	17
Coffee	...	...	...	1,084	10	Ginger (Preserved)	...	...	...	327	13
Condiments	...	...	...	1,052	9	Grapes	...	...	...	810	15
Confectionery	...	...	...	1,443	—	Grape Fruit	...	...	...	3,762	2
Cream of Tartar	...	...	...	6	10	Honey	...	...	...	94	10
Desiccated Coconut	...	...	...	2,360	6	Jams and Jellies	...	...	...	1,352	7
Eggs	...	...	...	130	—	Lard	...	...	...	8,314	6
Egg Powder	...	...	...	1,060	—	Lemons	...	...	...	2,039	—
Egg Liquid	...	...	...	779	10	Liquorice	...	...	...	13	—
Egg Pulp	...	...	...	70	—	Maize	...	...	...	72,931	—

TABLE A—*Continued.*

Article				Article			
Weight Tons. Cwts.				Weight Tons. Cwts.			
Macaroni	...	...	104 13	Pears	...	...	1,182 4
Meal	...	...	6,560 12	Potatoes	...	...	5,845 —
Meats (Canned)	...	...	1,831 18	Pomegranates	...	...	416 —
Melons	...	...	321 16	Rice	...	...	7,860 —
Milk (Canned)	...	...	5,135 6	Syrup (Fruit)	...	...	361 19
Milk (Dried)	...	...	1,254 —	Sundries	...	...	1,539 1
Mincemeat (Fruit)	...	...	377 8	Soups	...	...	5,030 15
Mixed Peel	...	...	194 16	Tea	...	...	2,456 —
Nuts (Various)	...	...	9,853 7	Tomatoes	...	...	300 —
Oats	...	...	250 —	Tomatoes (Canned)	...	...	458 10
Oils (Various)	...	...	2,219 8	Tomato Juice	...	...	72 —
Onions	...	...	8,181 —	Tomato Puree	...	...	1,726 —
Oranges	...	...	36,452 15	Tomato Sauce	...	...	18 5
Orange and Lemon Peel	...	...	228 10	Vegetables (Canned)	...	...	4,908 —
Pastry Mixture	...	...	16 —	Wheat	...	...	299,815 —
Peas	...	...	7,427 5				

Total Weight—627,496 tons, 6 cwts.

TABLE B

Aerated Waters	...	...	351 —	Lemon Curd	...	...	198 10
Acids	...	...	12 —	Liquorice	...	...	5 15
Apples	...	...	2,437 12	Maize	...	...	2,100 —
Barley	...	...	973 18	Meats (Canned)	...	...	1,099 6
Beans	...	...	90 11	Meats (Prepared)	...	...	484 6
Biscuits	...	...	31 9	Milk (Canned)	...	...	944 10
Condiments	...	...	34 —	Mince Meat (Fruit)	...	...	465 18
Confectionery	...	...	930 19	Nuts (Various)	...	...	153 6
Desiccated Coconut	...	...	11 11	Oils (Various)	...	...	30 2
Eggs	...	...	962 10	Onions	...	...	430 —
Egg (Liquid)	...	...	30 16	Oranges	...	...	800 —
Fats	...	...	261 15	Orange and Lemon Peel	...	...	7 —
Farinaceous Foods	...	...	495 —	Peas	...	...	307 8
Flour	...	...	8,825 15	Potatoes	...	...	169 1
Fruits (Fresh)	...	...	16 —	Rice	...	...	3 8
Fruits (Canned)	...	...	1,590 17	Sausage Meat	...	...	265 9
Fruits (Dried)	...	...	254 18	Soups	...	...	476 1
Fruit Juices	...	...	276 2	Sugar	...	...	2,188 10
Fruit Pulp	...	...	385 10	Sundries	...	...	215 6
Fruit Cake	...	...	16 —	Tomatoes (Canned)	...	...	4 16
Gelatine	...	...	4 19	Vegetables (Canned)	...	...	1,191 11
Hams	...	...	1,747 11	Vegetables (Fresh)	...	...	73 —
Jams and Jellies	...	...	89 —	Wheat	...	...	3,665 —
Lemons	...	...	270 —				

Total Weight—35,377 tons, 16 cwts.

The following foodstuffs were found unfit and disposed of to the satisfaction of the Port Medical Officer :—

Article				Weight Cwts. Qrs.		Article				Weight Cwts. Qrs.	
Apples	...	...	...	6	—	Jams and Jellies	...			3	1
Apricot Pulp	...	...	...	4	3	Lemon Curd	...	...		—	1
Barley	...	...	...	—	3	Milk (Canned)	...	...		27	3
Beans (Butter)	...	...	...	1,751	—	Milk (Dried)	...	...		—	3
Beer (250 gallons)	...	...	...	—	—	Macaroni	...	...		5	—
Biscuits	...	...	...	6	1	Mince Meat (Fruit)	...	...		9	3
Bananas	...	...	...	300	—	Maize	...	...	...	1,943	—
Cake Mixture	...	...	...	2	1	Meats (Canned)	...	...		3	1
Desiccated Coconut	...	...	...	3	2	Orange Juice	...	...		1	1
Fats (Sweetened)	...	...	...	—	3	Oranges	...	...	...	80	—
Fruit Cake	...	...	...	150	1	Onions	...	...	...	5	—
Flour	...	...	...	183	—	Potatoes	...	...		40	—
Farinaceous Foods	...	...	...	7	1	Soups (Canned)	...	...		69	—
Fruits (Canned)	...	...	...	130	1	Syrup	...	...	...	—	1
Fruits (Dried)	...	...	...	39	3	Spaghetti	...	...		2	2
Fruit Juice	...	...	...	6	—	Tomatoes (Canned)	...	...		6	2
Fruit Pulp	...	...	...	—	3	Tomato Paste	...	...		25	1
Fish (Canned)	...	...	...	—	2	Tomato Puree	...	...		2	—
Ginger (Preserved)	...	...	...	1	1	Tea	...	...	...	—	3
Grape Fruit	...	...	...	25	—	Vegetables (Canned)	...	...		5	2
Honey	...	...	...	1	2	Wheat	...	...	...	750	—

Total Weight—5,601 cwts., 3 quarters.

(Note.—33 cwts., 1 qr. were from ships' stores.)

## FOODSTUFFS EXAMINED BY CITY ANALYST

Article	Fit for human consumption	Unfit for human consumption or not in conformity with Regulations	Remarks
Apples ...	2	—	
Apricot Pulp ...	2	1	Contained an excess of SO <sub>2</sub> .
Beans ...	8	3	D.D.T. Powder present.
Cereals ...	3	1	Sea water damage—3 $\frac{3}{4}$ cwts. condemned.
Cake Mixture ...	4	3	Damaged by oil and water—2 $\frac{1}{4}$ cwts. condemned.
Confectionery ...	13	2	Yeast and starch present.
Cocoa ...	1	—	
Cream (Synthetic) ...	1	—	
Desiccated Coconut...	5	3	Damp and rancid—3 $\frac{1}{2}$ cwts. condemned.
Egg Powder ...	1	—	
Fish (Canned) ...	6	—	
Fruits (Canned) ...	11	—	
Fruits (Dried) ...	6	—	
Fruit Cake ...	3	—	
Fruit Juice ...	3	1	Contained an excess of SO <sub>2</sub> .
Fruit Pulp ...	—	1	Contained an excess of SO <sub>2</sub> .
Gelatine ...	1	—	
Grape Fruit Juice ...	1	—	
Grape Juice ...	1	—	
Honey ...	1	—	
Jams and Jellies ...	4	—	
Lard ...	2	—	
Lemon Juice ...	—	4	Three contained an excess of SO <sub>2</sub> . One contained Iron oxide— 1 $\frac{1}{4}$ cwts. condemned.
Meats (Canned) ...	21	—	
Mincemeat (Fruit) ...	6	—	
Milks (Canned) ...	2	—	
Orange Juice ...	3	7	Contained an excess of SO <sub>2</sub> .
Pork and Beans ...	2	—	
Peel ...	2	—	
Sauces ...	2	—	
Soups ...	5	1	Yeast cells present.
Syrup ...	2	—	
Tea ...	4	2	Damp and mouldy— $\frac{3}{4}$ cwt. condemned.
Tomatoes (Canned)	4	—	
Tomato Puree ...	2	—	
Tomato Paste ...	3	—	
Vegetables (Canned)	15	—	

WILLIAM J. SMITH,  
*Senior Port Inspector.*

The following statement submitted by the Corporation Veterinary Surgeon indicates the work done under the Imported Food Regulations during 1951.

## EXAMINED.

<i>Beef—</i>				<i>Offal—</i>	
Quarters ...	...	...	19,360	Ox Tongues, Bags ...	823
Cuts ...	...	...	2,970	Ox Tongue Roots, Bags ...	237
Bags ...	...	...	22,483	Ox Cheeks, Bags ...	275
<i>Veal—</i>				Ox Hearts, Bags ...	333
Bags ...	...	...	51	Ox Livers, Bags ...	3,025
<i>Mutton—</i>				Ox Stomachs, Bags ...	537
Carcases ...	...	...	96,724	Ox Kidneys, Bags ...	24
Bags ...	...	...	819	Ox Tails, Bags ...	84
<i>Lamb—</i>				Ox Skirts, Bags ...	836
Carcases ...	...	...	220,204	Ox Sweetbreads, Bags ...	12
Bags ...	...	...	1,316	Ox Sweetbreads, Cases ...	20
<i>Pork—</i>				Calf Tongues, Bags ...	464
Sides ...	...	...	12,829	Calf Cheeks, Bags ...	732
Cuts ...	...	...	283	Calf Hearts, Bags ...	618
Bags ...	...	...	31	Calf Livers, Bags ...	2
<i>Bacon—</i>				Calf Livers, Boxes ...	1,821
Bales ...	...	...	143	Calf Kidneys, Cases ...	109
<i>Poultry—</i>				Calf Kidneys, Bags ...	523
Cases ...	...	...	595	Calf Sweetbreads, Bags ...	74
<i>Rabbits—</i>				Calf Sweetbreads, Cases ...	20
Cases ...	...	...	499	Sheep Hearts, Bags ...	192
<i>Fish—</i>				Sheep Livers, Boxes ...	107
Cartons ...	...	...	6,521	Sheep Casings, Tierces ...	13
Bags ...	...	...	4,254	Lamb Hearts, Bags ...	710
<i>Whalemeat—</i>				Lamb Livers, Boxes ...	1,162
Bags ...	...	...	21,841	Lamb, Sweetbreads, Bags ...	7
				Pig Heads, Bags ...	449
				Pig Tongues, Bags ...	185
				Pig Hearts, Bags ...	232
				Pig Livers, Boxes ...	1,716
				Pig Kidneys, Bags ...	49
				Pig Sweetbreads, Cases...	6

## CONDEMNED

<i>Lamb—</i>		
Trimnings, Lbs.	...	3



## SECTION VIII.

## HOUSING.

The total number of permanent houses completed during the year 1951 was 3,839. The following table shows the rate of completion during the post-war years by the Corporation and the Scottish Special Housing Association :—

Year	Glasgow Corporation Contractor			Total	Scottish Special Housing Assoc.	Total Permanent Houses from all Sources
	Direct Labour	Tra- ditional	Non-Tra- ditional			
1945	491	—	—	491	—	491
1946	1,034	—	70	1,104	—	1,104
1947	1,004	120	282	1,406	100	1,506
1948	1,143	350	925	2,418	104	2,522
1949	1,597	479	1,557	3,633	378	4,011
1950	1,697	1,128	1,310	4,135	20	4,155
1951	2,152	537	1,050	3,739	100	3,839
Totals	9,118	2,614	5,194	16,926	702	17,628

In addition, during this period some 2,550 temporary houses have been erected and 1,692 dwelling-houses provided in requisitioned property. The Local Authority had proceeded to derequisition these latter properties and at the end of 1951 there remained 1,038 dwellings under requisition. At 31st December, 1951, the total number of houses provided by the Corporation since the commencement of local government operations was 77,942. The types of houses are shown in the following table :—

Ordinary Schemes	...	...	...	...	...	40,032
Temporary Houses	...	...	...	...	...	2,550
House Purchase Schemes	...	...	...	...	...	103
Intermediate Schemes	...	...	...	...	...	14,859
Rehousing Schemes	...	...	...	...	...	14,781
City Factor's Department and Other Departments	...	...	...	...	...	3,894
Scottish Special Housing Association	...	...	...	...	...	685
Requisitioned Properties	...	...	...	...	...	1,038
						<u>77,942</u>

The problem of housing sites is becoming more pressing than ever and the time available to solve the problem is rapidly decreasing.

At present there are some 40,000 families without a home of their own and in addition to the 303,000 dwellings within the city an additional 40,000 must be erected before every family is housed, giving a total figure of not less than 345,000 dwellings for the present city population.

A recent report by the Chief City Architect and Planning Officer on "Glasgow's Housing Needs" shows that the maximum number of dwellings which may be contained within the present boundary of the city is not much more than 330,000. Of these, not less than 164,000 must be regarded as unsuitable dwellings which at some future date will require to be replaced. Past experience has shown that in the densely populated areas where most of the undesirable dwellings are situated, not more than one-quarter of the number can be replaced on the same sites. If the population of Glasgow is to be housed by the city it is inevitable therefore that dwellings for a considerable proportion of the city's present population must be provided outside the present boundaries.

This problem of over-spill has been the subject of prolonged discussions both by the central and local authorities and while at first, following on the publication of the Bruce Report, it was thought that the city's population could be housed within the present city boundary, it is becoming clear that there is not the space available even if new building is continued at present densities requiring nearly everybody to live in flats.

The most urgent factor, however, is the one of time. The available sites within the city will be fully prepared for development by 1957 and unless a solution to the problem has been found by then the site preparation will stop.

Large-scale redevelopment of the centre of the city is dependent on the provision of sites elsewhere for not less than three-quarters of the families in the redeveloped area and even in some areas five-sixths must be removed elsewhere, particularly where there are not already some open spaces due to previous clearances. The redevelopment of the central areas therefore in advance of a solution of the homeless problem must be made at their expense. While the worst of the undesirable dwellings should be closed or demolished at an early date, large-scale clearances usually imply the removal of houses which are

not in this category. A recent review of an area in the Gorbals Ward illustrates this fact as out of a total of 191 dwellings, 99 (equivalent to 51·8 per cent.) were regarded as in the unfit category for immediate clearance and demolition but the remaining 92 houses were of a standard which did not permit representation under the Housing Acts at the present time and are not even borderline properties.

As a side effect of the site problem, a policy has been adopted by the Corporation of planning their new housing schemes to as high a density as is possible dependent on the suitability of the site. As previously mentioned, it has been necessary to provide up to 98 per cent. of total dwellings in three- and four-storey tenements and a recent area has been planned for 100 per cent. tenements.

Some time after the recent war, the Department of Health permitted the building of 25 per cent. of three-apartment dwellings compared with a previous 100 per cent. of four- and five-apartments. Owing to pressure from the Local Authorities, this figure of 25 per cent. has been increased progressively to 35 and to 50 per cent. and recently no restriction was placed on the proportion of three apartments. Glasgow has decided to build 75 per cent. of three apartments in the two remaining major schemes in the city, Castlemilk and Drumchapel. These schemes each provide for some 7,000 dwellings and one cannot but regret that an opportunity was not taken to reduce the proportion of three-apartments in order that houses of larger size would be available in the city. This policy repeats the policy followed in the 1920's when up to 75 per cent. of two-apartment houses were built in rehousing schemes. In view of Glasgow's history of overcrowding and the existence already of 47·3 per cent. of one and two apartments in the city, it is to be regretted that expediency has made this policy necessary.

It has been stated that over 75 per cent. of the families on the waiting list require a three-apartment house but it is probable that the waiting list contains many families who are unlikely to be rehoused. There are already in the city over 700 single-apartment dwellings with 7 or more inmates and just under 2,000 two-apartment dwellings with 8 or over. Further, the Scottish Special Housing Association have been constructing houses of two apartments. Theoretically for the accommodation of aged couples, they are in fact being used for young couples without families.

Finally, the Corporation have decided to reduce the ceiling heights of the new tenement dwellings. The Glasgow Streets, Sewers and

Buildings Consolidation Order Confirmation Act, 1937, laid down that the ceiling height of the ground floor of a tenement should be 9 feet 6 inches and on the upper floors, 9 feet. The pre-war practice in housing schemes was that the ground floor should have a ceiling height of 9 feet and the upper floors 8 feet 6 inches and this standard has been modified, up to date, to ceiling heights on all floors of 8 feet 6 inches. It is unlikely that the reduction to 8 feet will become the standard and no doubt progressive reductions to 7 feet 6 inches or even 7 feet may be found in turn necessary. While such ceiling heights might not have much effect on the inmates of houses with gardens, the higher densities, the complete exclusion of houses with gardens and the reduction in space within the house itself repeat the defects of overcrowding in the house, in the property, and on the site so well known in many old properties in the city.

The deterioration of the older type of property continues to exercise the Local Authorities in Scotland. It has been found necessary to condemn either as dangerous or as unfit a further number of buildings and the wastage of houses over the last seven years has reached 3,437 houses in Glasgow.

Year		Medical Officer of Health Closing Order	Demolition Order	Total	Master of Works Dangerous	Grand Total
1945	...	3	10	13	232	245
1946	...	12	14	26	15	41
1947	...	160	114	274	355	629
1948	...	2	43	45	471	516
1949	...	15	90	105	718	823
1950	...	68	100	168	531	699
1951	...	129	26	155	329	484
Total	...	<u>389</u>	<u>397</u>	<u>786</u>	<u>2,651</u>	<u>3,437</u>

#### REHOUSING OF TUBERCULOUS FAMILIES.

During 1951, 586 recommendations were made to the City Factor's Department under the Scheme for the Rehousing of Tuberculous Families. Altogether, 470 families were rehoused during the year, 163 being families recommended during 1951 and 307 families recommended in previous years. As will be seen, the number recommended still exceeds the number rehoused and there are at present some 1,000 families on the priority list who have not yet been provided with accommodation. One of the real difficulties is the lack of a sufficient number of houses at a rent which the families can pay.

## NUMBER OF TUBERCULOUS FAMILIES REHOUSED, 1935-1951.

Year	Families	Year	Families
1935 ...	278	1944 ...	166
1936 ...	182	1945 ...	124
1937 ...	125	1946 ...	220
1938 ...	100	1947 ...	245
1939 ...	82	1948 ...	326
1940 ...	52	1949 ...	787
1941 ...	60	1950 ..	480
1942 ...	69	1951 ..	470
1943 ...	146		

## RENT AND MORTGAGE INTEREST RESTRICTIONS ACTS.

Applications during the year for rent restriction certificates under the Rent and Mortgage Interest Restrictions Acts, 1920-1939, amounted to 243. The following table shows the number of applications from 1938 to 1951 :—

Year	Applications	Year	Applications
1938 ...	35	1945 ...	437
1939 ...	29	1946 ...	271
1940 ...	3	1947 ...	672
1941 ...	8	1948 ...	323
1942 ...	3	1949 ...	480
1943 ...	51	1950 ...	493
1944 ...	81	1951 ...	243

Of the 243 applications, 71 were granted and 163 refused and 9 were cancelled. There were 38 applications by house factors for reports, 35 of which were granted and 3 refused.

## OVERCROWDING.

The rehousing of families overcrowded under the 1935 Housing (Scotland) Act standard has not resulted in the further overcrowding by succeeding tenants. Statistics of decrowding in relation to houses vacated by families removed to new houses is shown in the table as follows :—

Size of House	No. of Houses Inspected	Over-crowding Removed	Over-crowding Reduced	Over-crowding Unchanged	Over-crowding Increased
One apartment ...	8,807	6,743	1,693	232	139
Two apartments ...	21,158	17,076	2,901	542	639
Three apartments ...	6,153	5,540	358	95	160
Four apartments and up ...	870	774	50	10	36
Total ...	36,988	30,133	5,002	879	974
Percentage ...	...	81.5	13.5	2.4	2.6



Out of 36,988 houses inspected subsequent to the transfer of the occupants to Corporation houses since the passing of the Housing (Scotland) Act, 1935, 18·5 per cent. were found to be again overcrowded compared with 19·1 per cent. in 1950.

#### UNINHABITABLE HOUSES.

During the year 155 dwellings were represented by the Medical Officer of Health to the Housing Committee as uninhabitable and a Demolition Order was made in respect of 26 and a Closing Order in respect of 129. Alternative accommodation for the tenants of unfit or dangerous properties still remains a problem as the majority of the families are able to pay only the lowest rent for houses which are also desired by tuberculous families.

The following table shows the total number of houses represented during the past 35 years and the action taken :—

Year	Number of Houses Represented under			Number of these Houses actually Closed in Each Year		
	Under Slum Clearance Schemes	Closing and Demolition Orders	Together	Under Slum Clearance Schemes	Closing and Demolition Orders	Together
1917-1937	8,635	8,278	16,913	8,545	7,605	16,150
1938	—	467	467	89	914	1,003
1939	36	275	311	2	347	349
1940	—	157	157	—	213	213
1941	—	52	52	—	74	74
1942	—	4	4	—	13	13
1943	—	46	46	—	47	47
1944	—	19	19	—	19	19
1945	—	13	13	—	12	12
1946	—	26	26	—	26	26
1947	—	274	274	—	127	127
1948	—	45	45	—	155	155
1949	—	105	105	—	136	136
1950	—	168	168	—	115	115
1951	—	155	155	—	200	200
Totals	<u>8,671</u>	<u>10,084</u>	<u>18,755</u>	<u>8,636</u>	<u>10,003</u>	<u>18,639</u>



## INSPECTION OF HOUSING SCHEMES.

“No one will expect a simple transference from one house to another to produce an effect which can be fully estimated whether it be for good or bad, at the very time of the transference. Moral and physical injury grows into the moral and physical constitution of the individual in the course of his life, and is cumulative in the constitution of successive generations of his descendants. A gutter child from the Bridgegate is a very complicated production. More forces have contributed to the pitiable result than those which have operated within the short span of his own life or even passed into his body from the parents who begot him. The evil which the Improvements Trust sets itself to remedy was worked in successive generations and the good which it desires to effect cannot be exhausted in a period short of the life of one generation, if not of several.” (Dr. J. B. Russell, 1874.)

In the 1927 Annual Report of the Medical Officer of Health opportunity was taken to include a report by one of the visiting nurses on the supervision of the tenants in rehousing schemes. The regular inspection and supervision had been in force for less than two years but already the difficulties encountered were becoming apparent.

Miss Elizabeth Walker, the second Housing Nurse to be appointed, retired on 21st May, 1952, after twenty-five years' work in the housing schemes. This year it would seem appropriate that advantage should be taken of including her views on the changes which have taken place during this period and the problems which still remain to be solved.

“Hamiltonhill, the first slum clearance rehousing scheme in Glasgow, was opened between 1923 and 1926 and supervision of the rehoused families was started in 1926. There has been, of course, considerable movement of tenants since that date. Of the original 728 tenants in Hamiltonhill, 205 remain, 167 being regarded as “clean” and 38 as “fair.” None of the original tenants is now in the “dirty” category and the “fair” ones are quite a good fair.

The Germiston Scheme was opened between 1928 and 1932. Of the original 688 tenants, 264 still remain, 220 regarded as “clean,” 42 as “fair” and 2 as “dirty.” While half of the “clean” tenants were clean when rehoused, the remainder have made progress from the “fair” and “dirty” categories. The following table is a survey of the 688 original tenants in the Germiston Scheme :—

				Clean.	Fair.	Dirty.	Total.
Left in arrears	...	...	...	69	129	21	219
Left for other reasons	...	...	...	79	43	2	124
Transferred to—							
Other Rehousing Schemes				24	19	1	44
Intermediate Schemes	...			17	2	—	19
Ordinary Houses	...	...		17	1	—	18
Remaining in Scheme	...	...		220	42	2	264

During the year 1929, 128 tenants left the scheme, most of them returning to old property near their former homes as there were old and farmed-out houses available at that time. When Germiston was first opened there were a great many complaints from the tenants that it was too far from their old haunts, it was cold, there were too few shops and no multiple shops, there was no picture house in the area, the tram service was poor, etc., etc. Now that many schemes have been opened up much further from the city the Germiston tenants are on the whole contented. The number leaving is smaller each year as other accommodation is impossible to obtain and in 1951 only 19 left, 14 transferred to other schemes, one in arrears of rent, and four vacancies due to death.

One seldom finds anyone really in want now. The children are very much better nourished and clothed and on the whole are well cared for. The feeding of the families at home and the way of taking their food has entirely altered. In 1927 it was a common sight to find the family having a meal in the living room or in the kitchenette with a pot in the middle of the table, sometimes on a newspaper and sometimes not, and the members of the family all helping themselves out of it. If the meal was in the kitchenette, the family would be sitting on the top of the boiler, the sink and the dresser. Fresh milk is now used in practically all the houses except where there are old people who still seem to prefer the condensed variety. Of course, the war years were partly responsible for this change as it was impossible to get condensed milk and fresh milk was cheaper. Formerly, practically every house had a condensed milk tin standing open and uncovered with flies constantly buzzing round it. The tenants on the whole are much more careful to keep flies away and many use D.D.T. sprays or powder. The standard of cooking has improved and vegetables are used more frequently and children eat much more fresh fruit.

The majority of the tenants prefer to have their meals in the kitchenette which is much more convenient for them. In many cases the coal bunker, shelves and dresser have been removed in order to make way for a table but, of course, when the tenant leaves he has to pay for the replacement of these fittings. The new type of house now being built is a tremendous improvement with a good-sized kitchenette suitable for the serving of meals, lots of cupboards and space for prams and bicycles.

The standard of living is much higher in every way. Practically all the tenants have wireless sets and a large number have radiograms which formerly were a luxury. These are bought on the hire purchase system and sometimes disappear after a spell. More families have easy chairs, rugs and other floor coverings and in every way more comfort. Many have interior spring mattresses on the beds with good sheets, pillowslips and blankets but there are still some homes where bedding is scanty and coats and other clothing are used for bed covers and pillowslips and sheets are unknown. Many tenants have installed electric washing machines which they find a great boon.

The tenants in the rehousing schemes have more or less settled down now and the 1·5 per cent. of really dirty ones has not varied much during the years. Each year there are one or two dirty tenants who are either evicted or leave owing rent and usually some move from "dirty" to "fair." Those who have left have been replaced by others coming from condemned properties, dangerous buildings, by overcrowded and lodger families and lately by a large percentage of tuberculous cases, all of whom require supervision. Some of the families coming from slum areas are much as they were in the early days. We are not really working on better material but if they are going to make good, they are able to do so much more quickly. There is not the poverty that there was in 1929 nor the unemployment and we are not getting the large numbers all at once into the rehousing schemes as when they were first let.

The dirty tenants are usually found to be irregular at paying rent and the children are the most destructive. Often they are under the supervision of probation officers and are well-known to the police. Most of them are below par mentally and often they have large families. It has been found that the chief reasons for dirty tenants are domestic worries, money worries, wives not getting a fair share of husbands' wages, low mental standard, gambling, drink, criminal history, and

just laziness. The following examples of tenants classified as "dirty" are illustrative of the problem which the housing nurse meets in her work of supervision :—

(1) Rehoused in 1929, 3-apartment house. Widower, 20, 18\*, 14\* and married daughter (her husband is in army). House was fairly clean till 1943 when wife was ill. She died in 1946. Widower and family only clean up when nurse is around. They are all very low type mentally and seldom work. Gambling seems to be the trouble here as the wife always said that the money-lenders got her money.

(2) Rehoused in 1929, 2-apartment house. Widow, son and daughter. Have always been dirty. Woman is an habitual drunkard. Daughter takes fits and is at present in a home. Son is often idle or away from the house.

(3) Rehoused in 1931, 2-apartment house. Widower, 20, 18\*, 13\*, 9\*. Wife died in an asylum in 1948. All low mentally. Always dirty. Man takes no interest in home—drink and gambling the trouble. He works but won't give enough to home. Son and daughter also working fairly regular but just won't take any interest in keeping house right.

(4) Rehoused in 1932, 3-apartment house. Household supposed to be a widower and two sons and married daughter, husband and 4 children. Queer household and they are all a real bad lot. All have criminal history. Sons and son-in-law have served sentences for theft and resetting. Practically no furniture in house and bedding very poor.

(5) Rehoused 1929, 3-apartment house. Husband, wife, 21, 18, 16\*, 14\*, 11, 7\*. Have always been dirty and no reason for it except their mental condition. Man seldom works, wife works very occasionally. Family does not appear to work much either and are usually in bed in late forenoon. House always full of young men and women. ? Criminal history.

(6) Rehoused 1929, 3-apartment house. Husband, wife, 24\*, 18\*, 15\*, 12. Had dirty habits from beginning. Have had a lot of domestic worries—lost 3 children in one year. Oldest boy takes fits. Man works but doesn't give enough to house so wife works too and isn't very fit either mentally or physically.

(7) Rehoused 1933, 2-apartment house. Husband, wife. Man deformed, works very occasionally. Old tuberculosis history. Wife

\* Male member of household.



very low mentally. Daughter married when 17 to man who spends most of his time in prison so she lives here with her 2 children at various times. Quiet inoffensive couple but just won't clean.

(8) Rehoused 1937, 3-apartment house. Man, woman (not his wife) and 19\*, 17\*, 16\*, 13\*, 12, 10\*, 7\*, 6\*, 5, 2,  $\frac{8}{12}$ \*. Very bad history. Man almost blind and deaf. Works in Blind Asylum but won't give enough to house. Has served several sentences in prison for not supporting family and for assault. One boy is in an approved school. All children from 7 upwards are on probation.

(9) Rehoused 1938, 3-apartment house. Widower, 18\*, 14, 12\*. Man always working but won't get anyone into house to help to clean it and do washing. Only cleaned up for nurse's visits which are very frequent as she is trying to get the girl interested in the home. Very plausible man. ? Gambles.

There has been a great deal of malicious damage done to staircase windows ; indeed, few of the stairs have windows intact. Some window sashes have been removed altogether and most of the space has had to be bricked up or iron bars inserted. The result is that on wet days the stairs become very dirty and the tenants are not taking a pride in keeping the stairs and closes clean. They are inclined to lose heart over cleaning stairs when there are bricks half-way up the window and the rain can come over the top. One thing which would help more than anything to keep stairs and closes clean would be to forbid tenants keeping dogs and cats. The dogs are seldom trained and are a real nuisance. Tenants, of course, are very unwilling to act together in a complaint against owners of animals.

The railings between the backcourts have been broken or removed to make a thoroughfare from one street to another through the closes. Even some of the clothes poles have been pulled down and there is little grass left in the backcourts. Good tenants in the block houses used to take pride in their gardens but with the removal of the railings during the war it has been practically impossible to keep a garden.

Lodgers nowadays are the biggest problem. There is a great deal of overcrowding due to members of families getting married and continuing to live with their parents or returning to the parents' home later on with their children when it is difficult to obtain rooms with strangers. The young couples usually are working and the poor granny is left to look after another group of children. Several homes which were classified as " clean " have gone back to " fair " for this reason.

\* Male member of household.

Another serious and worrying problem has now presented itself in the number of old persons living alone. Some of these old people have relatives living with them, others have part-time home helps, and some solve their difficulties by taking in lodgers. This latter arrangement is satisfactory provided there is no overcrowding and the lodger understands that she is responsible for the cleanliness of all the house, as well as the bedding and clothing of the old person. Sometimes the housing nurse contacts relatives of the old people and tries to persuade them to share the responsibility. The National Assistance Board is very helpful in giving extra money grants to old people to pay for stair washing, window cleaning and some house cleaning and also for the replacement of sheets, blankets and other bedclothes. Some of the old people get "Meals on Wheels" supplied three days a week by the W.V.S. and this is a service which is appreciated very much.

The bug infestation of houses which used to be a big worry is no longer a serious problem, thanks to the D.D.T. Unit. Last year only 6 houses in Hamiltonhill were found to have bugs and all were immediately treated with D.D.T. without a recurrence.

The percentage of "clean," "fair" and "dirty" tenants has not varied a great deal throughout the years and it might look as if there had not been much progress made. One must, however, take into account the number of tenants who have removed either to ordinary or intermediate houses and the fact that the worthless and troublesome tenant has been left. In the early days of Germiston when there was a small Tenants' Association, some of the good tenants, encouraged by the resident factor, Miss Gillan, tried to influence the others to prevent destruction of the houses and buildings but their lives were made unbearable and they ceased trying. I have often wondered if something like that could be started again as an added measure to improve the standard in a scheme. Otherwise, the dirty and troublesome tenant, who has been given a reasonable chance with special supervision and fails to prove worthy, should be transferred outwith the scheme."

Miss Walker's work has been mainly in the rehousing schemes but the pre-war arrangement of rehousing, intermediate and ordinary schemes is tending to become blurred. Already it is apparent that the ability to pay an ordinary rent does not necessarily imply that the family are suitable for such a type of scheme and the necessity for the expansion of the work of the Housing Nurses is becoming evident. The present housing financial burdens make it difficult to find a solution which will allow for an adequate rent with supervision.



The problem of supervision will become immense if the rehousing of families from unfit dwellings and clearance areas is concentrated in a few large schemes. Pre-war experience has shown that not only for the tenants' sake, the best results are obtained in modest rehousing schemes and that where large numbers of rehoused tenants are brought together the worst elements tend to become uppermost.

## ROUTINE INSPECTION OF HOUSING SCHEMES.

### (a) *Condition as to Cleanliness.*

The number of houses in the various rehousing schemes reported on is—14,769.

No. of tenants under supervision at 1st January, 1951	...	14,711	
Of which evicted or left owing rent during 1951	23		
Of which left voluntarily during 1951	...	521	
		<hr/>	544
Of which remaining as at 31st December, 1951	...	...	14,167
No. of tenants obtaining entry during 1951	...	560	
Of which evicted or left owing rent during 1951	—		
Of which left voluntarily during 1951	...	—	
		<hr/>	560
Of which remaining as at 31st December, 1951	...	...	560
Total number of tenants remaining as at 31st December, 1951	...	...	<hr/> <hr/> 14,727

During 1951 the nurse inspectresses made 79,326 primary visits, the condition of the houses being recorded at the time of the visits as "Clean" 46,596, "Fair" 31,592, and "Dirty" 1,138. Further visits numbering 2,625 were made to the less satisfactory tenants.

At the beginning of the year 14,711 households were under supervision and at the end of the year 14,727—an increase of 16. The number of new tenants was 560. There were 544 removals or 3·7 per cent. of the total occupancies.

The changes in the condition of the 14,167 households under supervision throughout the whole year were as follows :—

Condition at beginning of year—				Condition at end of Year.				Group
				Clean.	Fair.	Dirty.	Totals.	Percent-
								ages.
Clean	...	...	...	9,421	292	—	9,713	68·6
Fair	...	...	...	308	3,988	13	4,309	30·4
Dirty	...	...	...	—	45	100	145	1·0
				<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total	...	...	...	9,729	4,325	113	14,167	100·0
				<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Group Percentages	...	...	...	68·7	30·5	0·8	100·0	—

A similar table is given for the 560 tenants who obtained entry during the year and who were still resident in the schemes at the close :—

Condition at date of entry—	Condition at end of Year.			Totals.	Group Percentages.
	Clean.	Fair.	Dirty.		
Clean ... ..	209	36	—	245	43·8
Fair ... ..	41	271	—	312	55·7
Dirty ... ..	1	1	1	3	0·5
Total ... ..	251	308	1	560	100·0
Group Percentages ... ..	44·8	55·0	0·2	100·0	—

The condition prior to removal of the houses occupied by families who were evicted or left owing rent and by tenants removing voluntarily during the year is compared in the following table :—

Condition at date of Removal—	Tenants Evicted during 1951.		Tenants Removing Voluntarily during 1951.	
	No.	Group Percentages.	No.	Group Percentages.
Clean ... ..	6	26·0	403	77·4
Fair ... ..	16	69·6	117	22·4
Dirty ... ..	1	4·4	1	0·2
Total ... ..	23	100·0	521	100·0

(b) *Bug Infestation.*

The total number of houses in which evidence of the presence of bed bugs was found was 77, or 0·5 per cent., as against 1·18 per cent., in 1950. Analysis of this figure shows that only a "trace" of bed bugs was found in 27 houses or 0·2 per cent., as against 0·3 per cent., recorded in 1950. In this group of houses only old hatched eggs or bug casts but no living bugs or eggs were found in the beds or on furniture, pictures or other household belongings. In 20 houses or 0·1 per cent., compared with 0·24 per cent., in 1950, a "medium" degree of infestation was found and by this is meant that living bugs or eggs were found in beds or on furniture, pictures or other household belongings, but not in the structure of the building itself. This condition is readily remedied by the tenants by applying the ordinary methods of household cleansing under the directions of the nurse inspectresses. In 30 houses or 0·2 per cent., compared with 0·91 per cent., in 1950, a "serious" degree of infestation was found. In these

houses living bugs or eggs, or both, were found in beds, or furniture or on picture rails, skirting or door facings. Since the establishment of the D.D.T. Disinfestation Unit in 1948, it has been found that the proper application of D.D.T. and Gammexane ("B.H.C.") is sufficient in itself to eradicate infestation of the wall structures without having recourse to the removal of woodwork for the purpose of disinfestation. It will be appreciated that this new procedure causes the minimum of upset in the house while achieving the same results. A feature of the work of the nurse inspectresses is the early detection of infestation and this has been very important in that it has prevented the vermin from establishing themselves for any length of time.

The table submitted herewith shows the progress made during the past eighteen years in the prevention of bug infestation which has fallen from 10·7 per cent., in 1934 to 0·5 per cent., in 1951. It should be noted that serious infestation has fallen during that period from 7·1 per cent., to 0·2 per cent., throughout the rehousing schemes. This progress is further proof that the preventative system which has been practised in Glasgow during the past eighteen years is thoroughly sound, as it depends for its success upon the cleanliness of tenants and the supervision of them by the nurse inspectresses who are specially trained in the work of prevention of infestation by the bed bug.

#### PROGRESS OF BUG INFESTATION PREVENTION IN REHOUSING SCHEMES.

Year.	Number of Houses Inspected.	Number of Houses in which Bed Bugs were found.				Percentage of Total Number of Houses.			
		Trace.	M.I.	S.I.	Total.	Trace.	M.I.	S.I.	Total.
1934	... 8,670	104	210	612	926	1·2	2·4	7·1	10·7
1935	... 10,576	218	368	378	964	2·1	3·5	3·6	9·2
1936	... 12,803	220	296	295	811	1·7	2·3	2·3	6·3
1937	... 13,676	253	165	304	722	1·8	1·2	2·2	5·2
1938	... 14,416	138	69	240	447	0·9	0·5	1·7	3·1
1939	... 14,609	79	62	168	309	0·5	0·4	1·2	2·1
1940	... 14,669	55	75	185	315	0·4	0·5	1·2	2·1
1941	... 14,731	51	65	94	210	0·3	0·4	0·7	1·4
1942	... 14,751	34	61	121	216	0·2	0·4	0·8	1·4
1943	... 14,769	25	51	120	196	0·2	0·3	0·8	1·3
1944	... 14,769	21	26	110	157	0·1	0·2	0·8	1·1
1945	... 14,769	31	21	108	160	0·2	0·1	0·7	1·0
1946	... 14,769	33	23	105	161	0·2	0·2	0·7	1·1
1947	... 14,769	30	21	131	182	0·2	0·1	0·9	1·2
1948	... 14,769	35	28	83	146	0·2	0·2	0·6	1·0
1949	... 14,769	27	41	89	157	0·2	0·3	0·6	1·1
1950	... 14,769	4	36	134	174	0·3	0·24	0·91	1·18
1951	... 14,769	27	20	30	77	0·2	0·1	0·2	0·5

Trace—Trace of Bugs.

M.I.—Medium Infestation.

S.I. Serious Infestation.

## DISINFESTATION UNIT.

During the year the work of this Unit has been maintained at the same satisfactory level. The efficiency of the method of disinfestation has again been demonstrated by the smallness in the number of recurrences reported, practically all being due to some action taken by the householder contrary to advice, such as distempering and redecorating the apartment before the insecticide has had an opportunity of exerting its full effect.

The table below shows the work carried out in each of the sanitary divisions in the city. The apparent drop in the number of apartments treated is due to the inclusion in the 1950 figures of some common lodging-houses, each of which comprises several hundred separate apartments.

Sanitary Division.		No. of Bug Infested Apts. Treated.	No. of Apts. Treated for Tenants being Rehoused.	No. of Cockroach Infested Apts. Treated.	Total No. of Apts. Treated.	Total No. of Visits.
Northern ...	...	825	371	68	1,264	1,485
Eastern ...	...	875	146	71	1,092	1,381
South-Eastern ...	...	409	246	70	725	878
Central ...	...	427	178	64	669	735
South-Western ...	...	450	98	59	607	684
Total	...	<u>2,986</u>	<u>1,039</u>	<u>332</u>	<u>4,357</u>	<u>5,163</u>

The advice of the Unit continues to be sought by private individuals and commercial firms. The work involved in the treatment of verminous bedding and clothing before its removal to the disinfecting stations has increased, over 200 special visits being made for this purpose.

A colony of temporary prefabricated houses was treated successfully for an invasion of tiny red mites, and numerous heavy infestations of owl midges in dwelling-houses and several heavy infestations of earwigs occurring in Corporation houses of both cottage and tenement type were also successfully dealt with.

During the year this Unit received the largest number of complaints to date of infestations by the furniture beetle (*Anobium Punctatum*). Although no treatment was given in those cases by the Unit advice was

given to the owners on the best available remedial methods. It would almost appear that this form of infestation is on the increase.

*Cockroach Infestation.*—On account of this type of infestation help was requested from several commercial firms, mainly concerned with food preparation. One of the largest picture houses in the city was also successfully treated, the infestation being heaviest round the steam radiators in the auditorium. This type of work can, of course, only be done after the normal working hours of the business concerned, and in the case of the picture house had to be carried out at the week-end. At Foresthall a very heavy and long standing infestation with both the common cockroach (*Blatta orientalis*) and the lesser cockroach (*Blatella germanica*) necessitated large scale operations ; nevertheless, practically complete eradication has been achieved.

An interesting side effect has come to light during many of these operations, the owners of the premises reporting a considerable " kill " in the mouse population of the building.

*Dangerous Buildings*—A recent addition to the varied duties of the Unit has been an arrangement whereby the Unit co-operates on the spot with the Welfare Section in order to secure the treatment of bug-infested furniture and bedding before its removal to the Department's store in Carlton Place.

*Insecticides.*—It is still the opinion of the Unit that D.D.T. and Gammexane (B.H.C.) used in either liquid or powder form are the most satisfactory methods of treating infested houses or business premises. When used dry D.D.T. powder 5 per cent. or 10 per cent. Gammexane Insect Powder (0.5 per cent. Gamma B.H.C.) were employed. In the liquid form 5 per cent. D.D.T. water emulsion made from a 25 per cent. concentrate or Gammexane Emulsion Concentrate M.G. 240, were found most satisfactory. For the large scale storing of furniture, such as took place following the recent hurricane, D.D.T. and Gammexane smoke generators were found useful, especially when the furniture had been built high in tiers rendering spraying impracticable.



## SECTION IX.

### BACTERIOLOGICAL LABORATORY.

In no way has biological science, of which bacteriology is an important branch, so enlarged the scope of medical thought as in its application to social problems. Changes in the climate of opinion have been taking place and social medicine is in the air to-day; it is the new humanism, a philosophy which seeks a healthier physical environment for mankind.

If only by reason of the many problems already elucidated by bacteriology in relation to preventable diseases, and because of its valuable services in the control of infections in times of epidemic prevalence, the practical application of the science to public health matters and hygiene has been of enormous importance, and the association of the bacteriological laboratory with the activities of health departments fully justified. The conjunction has for long exercised great influence on the public health and has given to medical officers of health administrative powers of control unknown before the advent of laboratory diagnosis. Nowadays most infectious diseases have to be considered from the social aspect, e.g., tubercle, V.D., diseases of the nose and throat, and such consideration is in the forefront of every M.O.H.'s practice, for he is increasingly turning to the art of preventing disease in those people and classes whose conditions call for special measures. It is a help in this modern effort at organisation and adaptation to the needs of the times, for the M.O.H. so engaged to have ample laboratory facilities where social bacteriology can be carried out and group investigations made.

The bacteriological and other services of the Public Health Laboratory have always been of great assistance in the control of infectious disease, and it has not been uncommon to see an outbreak of disease having the potentialities of an epidemic nipped in the bud as a result of early bacteriological diagnosis.

Epidemics have waxed and waned in the past, and a low morbidity is a measure of efficient control, but reservoirs of various infections still unfortunately form part of man's economy, as evidenced by our endemic diseases, which are inimical to human welfare. At any time one of these may threaten epidemic outbreak which might have serious



consequences if it occurred. The constant detective work which a bacteriological service pursues among the community in the interests of public health does much to prevent such outbreaks and to lessen the risks. Many branches of applied medicine form elements from which the modern art and science of social medicine is built. Public health, social hygiene, medical welfare, industrial medicine, social assistance for example, and in relation to these there are many applications of bacteriology which provide useful information to an M.O.H. in his medico-sociological surveys and enquiries.

In the essential features of its nature and range, the work of the laboratory in 1951 was similar to that of previous years. The volume of work continues to be large, which furnishes renewed evidence of the extensive use that is made of the service. There were no large outbreaks of serious disease and no large scale epidemics brought to the notice of the laboratory, but in September there occurred an outbreak of food poisoning, found to be due to *Salm. enteritidis* which affected people within and without the city; and later in the year an outbreak of illness due to *Salm. paratyphi B*. Between the two, approximately a hundred persons were affected. The Glasgow subjects of these illnesses provided the laboratory with large numbers of specimens for examination for both diagnosis and control.

In August, in connection with the work done for Stirlingshire, we were asked to help trace carriers of Paratyphoid infection in a mental institution. Carriers were traced by examining the sewers for enteric organisms and working backwards to locate the places of entry of pathogens into the tributaries of the sewers. By this means the location of the infection was found and by examining a large number of specimens of excreta from the inhabitants of this location, the individuals carrying infection were identified. This work entailed the examination in all of almost 2,000 specimens of various kinds.

The total number of examinations made in the laboratory in 1951 was 98,986 compared with 101,036 in 1950, and 88,014 in 1949. The number is only second to the record of 1950, the previous next highest figure being that of 1948 (95,851). There were decreases in the number of specimens examined in connection with venereal disease and dysentery, and increases in those examined in relation to the diagnosis and control of tuberculosis and food-poisoning. There was also an increase in the work done by arrangement for Stirlingshire.

Details of the work done are set out in the table at the end of this report.

## INFECTIOUS DISEASES—EPIDEMIOLOGICAL INVESTIGATIONS.

*Diphtheria*.—The number of swabs examined during the year for the presence of the diphtheria bacillus was 5,008. This figure marks a decline of 860 on last year's total. The reduced figure may represent a decrease in sore throats suspected of being diphtheritic in origin, but it is not in this instance indicative of fewer cases of diphtheria coming to the notice of the laboratory. The benefits of the constantly pressed campaign for immunisation (prophylactic inoculation), despite some slackening during the prevalence of poliomyelitis, are still very much in evidence, but the figures about to follow show that no restriction of the immunisation service can be safely allowed; on the contrary, primary immunisation and regular re-inforcement must be continually urged. Of the number of swabs received, 4,329 were from suspected cases, and 679 were examined for purposes of control.

The number of positive specimens from new cases was 165, which is 47 more than last year, a rise of about 40 per cent. Typing of all strains of *C. diphtheriae* isolated was continued, and virulence and toxigenicity tests were carried out as required. Biological tests for virulence numbered 64 and toxigenicity tests 178. Of the 165 cultures of *C. diphtheriae* isolated from new cases, 88 were classed as *gravis*, 14 as *intermedius*, 21 as *mitis* and 42 as atypical in type. The following table gives the numbers and relative incidence of the types of the diphtheria bacillus isolated in the laboratory from new cases in the last six years.

Year		Total	Gravis		Intermedius		Mitis		Atypical	
		No. of Strains	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
1946	...	973	447	45.9	214	22.0	194	19.9	118	12.0
1947	...	389	136	35.0	59	15.1	119	30.6	75	19.3
1948	...	397	122	30.7	54	13.6	142	35.7	79	19.8
1949	...	220	46	20.9	41	18.6	86	39.1	47	21.4
1950	...	118	40	33.9	12	10.2	32	27.1	34	28.8
1951	...	165	88	53.3	14	8.5	21	12.7	42	25.4

It will be noted that the progressive decline in the number of strains of *C. diphtheriae* isolated has halted, and that a rise took place in 1951. The proportion of the more dangerous types, *gravis* and *intermedius*, was 61.8 per cent. against 44.1 per cent in 1950, a significant rise. Of the *mitis* and atypical strains, 53 were non-virulent and non-toxigenic, which leaves 112 virulent strains in all, nearly twice as many as in 1950. Moreover, of these, the potentially epidemic

*gravis* strain accounts for 78·5 per cent., against a similarly calculated percentage of 62·5 in the previous year. All the *gravis* strains were proved toxigenic by laboratory tests. It is evident that the reservoir of this dangerous type of *C. diphtheriae* still exists in the community and more persons were infected from it than in 1950. These figures provide the strongest argument for vigorous prosecution of the prophylactic inoculation against diphtheria of the susceptible population.

*Streptococcal infections.*—Haemolytic streptococci are often a cause of sore throat: they are also found in erysipelas, scarlet fever, maternal sepsis after childbirth and other disorders. It is specially important that attendants upon lying-in women should be free from haemolytic streptococcal infection of the nose and throat because of the danger of infecting their patients.

The number of swabs, mostly from nose and throat, examined in 1951 for the presence of haemolytic streptococci was 994 against 661 in 1950. Positive results numbered 287.

Much other material from various lesions was also examined for streptococci, including non-haemolytic varieties which, though not usually as virulent, are often capable of causing disease.

*Vincent's infections.*—These are infections, usually of the throat, though other regions may be affected, with a spirochaete (*Borrelia vincenti*) and a bacillus which is usually present also (a concomitant), known as *Bacillus fusiformis*. They cause ulceration and sometimes gangrene. The laboratory is often asked to examine swabs from the throat or mouth for these microorganisms. This year 293 were received and yielded 12 positive results.

*Enteric Fever.*—Material from 740 suspects yielded typhoid and paratyphoid bacilli 22 times, but from specimens from contacts and those sent for purposes of control, 623 in all, these organisms were isolated 132 times. In addition to these isolations from sporadic cases, many more were made from an outbreak of infection with *S. paratyphi-B* which occurred at the end of the year (Nov. and Dec.) and was thought to be associated with food (cream confectionery) bought at branches of a multiple store. In connection with this outbreak, which was due to the 'Taunton' type of *S. paratyphi-B*, 1,440 samples of excreta from patients and contacts were examined and the microorganism isolated 64 times from 23 infected persons. In addition,

43 samples of food (cream cakes, cream, etc.) and swabs from culinary utensils were examined, all with negative results, though some of them yielded high bacterial counts and showed evidence of faecal contamination.

Apart from this outbreak, *S. typhi* was isolated 16 times from 3 patients and *S. paratyphi-B* 119 times from 19 patients, small numbers related to the large population of the city.

From workmen employed around waterworks 59 specimens of excreta were examined to eliminate possible infection by enteric organisms, whereby the water-supply might be accidentally polluted. Results of all examinations were negative. Blood from many of these persons was also tested for evidence of infection, but none was found.

From Stirlingshire the laboratory was called upon to investigate paratyphoid infection in a mental institution. Swabs from the sewers were examined in an endeavour to locate the source and from 83 swabs *S. paratyphi-B* was isolated 13 times and *S. typhi* once. From 273 people 372 samples of blood were tested and from all whose blood-serum gave positive or suspicious reactions specimens of excreta were examined, with the result that *S. paratyphi-B* was isolated from 8 persons and both *S. typhi* and *S. paratyphi-B* from one.

*Dysentery (bacillary).*—There was a welcome decline in the incidence of bacillary dysentery during the year, judging by the amount of work required of the laboratory in this connection. In all, 11,895 specimens were examined from suspects or for purposes of control, against 15,077 the year before. The total number of positive findings was 1,595 (3,185 in 1950), of which 989 were from new cases, less than half the number in 1950.

Although infections by the Sonne type of bacillus very greatly overshadow infections by the Flexner type, there has been almost equal percentage reductions in both.

The disease continues as a whole to be mild in its manifestations in Glasgow, and as usual it falls with maximum incidence on the young.

*B. dysenteriae* (Sonne) was recovered from 949 patients against 1,865 in 1950; *B. dysenteriae* (Flexner) from 40 patients against 105. The maximum incidence of Sonne infections fell in May and of Flexner infections in February. These two were the only types of dysentery bacilli isolated.



The following table enumerates the laboratory isolations of various types since 1946.

Year		Sonne	Flexner	Newcastle	Shiga	Schmitz	Total
1946	...	111	109	49	—	—	269
1947	...	66	18	21	—	—	105
1948	...	434	383	3	—	—	820
1949	...	501	373	1	—	1	876
1950	...	1,865	105	—	—	—	1,970
1951	...	949	40	—	—	—	989

Recurrent waves of increase are seen in 1948 and 1950, though in the latter year the upsurge was due to a more than threefold increase in Sonne infections, while the number of Flexner infections was less than a third of that of the previous year.

By the accreted connotations enwrapping the word, 'dysentery' describes the dramatic symptoms of a severe disease very different from those seen in modern endemic dysentery. Dysentery is a clinical term which has become involved in bacteriology, and most of the infections at present seen could never be designated dysentery in the clinical sense, though they are caused by potentially virulent types of bacteria. Conveyance of infection among the population is caused chiefly by lapses in personal hygiene by way of hands, and food.

*Dysentery (amoebic).*—Eighty-three specimens of faeces were examined for *Entamoeba histolytica* all with negative results. Most of these were from ex-servicemen.

*Food-poisoning and Foodstuffs.*—Many more cases of illness thought to be due to food-poisoning came to the notice of the laboratory in 1951, and many more specimens were received for examination. Apart from the numerous foodstuffs examined because of the outbreak of infection by *Salm. paratyphi-B* already recorded, 28 samples, including various meats, dried peas, tinned soup, tinned fruit, sausages, cheese, duck eggs, etc., which might have been associated with illness, were investigated, but *Salmonella* bacilli were not found in any of these, nor was *Staphylococcus aureus*, some strains of which produce toxins which cause gastro-intestinal upsets. In addition 2,671 specimens from patients were examined, almost twice as many as in 1950. This figure includes primary specimens and repeat specimens examined for purposes of control. Many were from isolated cases, or outbreaks affecting a few people only, but many were from a fairly large outbreak

due to *Salm. enteritidis* which occurred in September, involving over twenty persons in Glasgow alone, and more in outside districts. The infection was traced to carriers in a meat-processing factory.

One hundred and seventy-four cases of illness against 100 last year proved to be due to infection with various types of food-poisoning bacilli of the Salmonella group, and these organisms were isolated 520 times from patients for purposes of diagnosis and control.

The different salmonellae isolated in the laboratory during the past eight years are listed in the following table together with the numbers of persons affected. The number of patients and the varieties of microorganisms are not to be taken as presenting a complete picture of infections in Glasgow due to this cause, because specimens from every case in an outbreak are not necessarily received in this laboratory, and probably many slight infections escaped notice. Also other types of salmonellae may have been isolated elsewhere. But from the large number of specimens investigated (2,671) and the number of their sources, it is justifiable to regard the relative incidence of types and of fluctuations in numbers indicated in the table as showing very fairly the state of affairs.

	1951	1950	1949	1948	1947	1946	1945	1944	Totals
<i>S. typhi-murium</i> ...	97	80	73	16	8	11	8	5	298
<i>S. enteritidis</i> ...	53	12	—	4	2	1	2	4	78
<i>S. newport</i> ...	9	—	1	2	2	3	1	1	19
<i>S. thompson</i> ...	4	5	1	—	—	—	—	—	10
<i>S. potsdam</i> ...	4	—	—	—	—	—	—	—	4
<i>S. saint-paul</i> ...	2	—	—	—	—	—	—	—	2
<i>S. montevideo</i> ...	1	—	1	1	—	—	2	—	5
<i>S. bovis morbificans</i> ...	1	—	1	—	—	—	—	—	2
<i>S. georgia</i> ...	1	—	—	—	—	—	—	—	1
<i>S. oregon</i> ...	1	—	—	—	—	—	—	—	1
<i>S. minnesota</i> ...	1	—	—	—	—	—	—	—	1
<i>S. newington</i> ...	—	1	—	—	—	—	—	—	1
<i>S. san-diego</i> ...	—	1	—	—	—	—	—	—	1
<i>S. senftenberg</i> ...	—	1	—	—	—	—	—	1	2
<i>S. bredeney</i> ...	—	—	—	—	1	—	—	—	1
	<u>174</u>	<u>100</u>	<u>77</u>	<u>23</u>	<u>13</u>	<u>15</u>	<u>13</u>	<u>11</u>	<u>426</u>

The table shows *Salm. typhi-murium* to be the commonest food-poisoning organism, followed in order of frequency by *S. enteritidis*. It shows also the increase in the number of members of the Salmonella group isolated since 1948, indicating the increase of food-poisoning



illnesses among the community. Up to now 15 different types of *Salmonellae* have been found, and a wider variety lately. As about 200 antigenic types have been described, the number isolated in Glasgow seems small, but many of these described have not yet been recorded in Britain. There were 45 named varieties found in England and Wales in 1950 and 44 unnamed and unidentified. It would be strange if Glasgow escaped visitation by other types in due course.

The suspected vehicles of infection in Glasgow were similar to those recorded in other parts of the country, meat products and made-up meat dishes chiefly; duck eggs, sweet dishes containing milk products and dried eggs occasionally. Unfortunately the contaminated food itself is rarely available by the time the infection is identified in the patient, so that absolute proof of the connection of the illness with a particular foodstuff is not often obtained.

Many of the rarer salmonellae were said to have been first introduced into this country when large scale distribution of dried eggs began during the war, but if so, they have been longer showing themselves in Glasgow than elsewhere. The commoner types were found occasionally, but regularly, for many years past.

In addition to the salmonellae found in Glasgow and listed in the table, *S. cholerae suis*, var. *kunzensdorf* was isolated from a patient in Stirlingshire. Infections with this type usually give rise to severe illness.

Besides food examined in connection with cases of illness, miscellaneous samples were tested for bacterial contamination with reference to their fitness for consumption. There were 17 specimens including aerated drinks, chocolate, tinned soup and synthetic cream. No pathogenic bacteria were isolated from any one of these.

*Shellfish*.—Ten batches of shellfish, mussels and whelks, some cooked and some alive as gathered, were routinely examined for evidence of bacterial pollution. From these samples 124 individuals were investigated. No frank pathogens were isolated in any instance, but some of the uncooked shellfish showed faecal contamination. All the cooked samples yielded good results.

*Anthrax*.—Two samples of hides from a tannery which in the previous year had been implicated in a human infection with *B. anthracis* were examined biologically. Anthrax bacilli were not found.

*Venereal Diseases.*—During 1951 a total of 32,535 tests were made on 27,407 specimens, of which 24,463 were examined for syphilitic and 2,944 for gonococcal infection.

For syphilis, the Wassermann, Kahn and Laughlen (precipitation) tests were used. Of the 12,728 Wassermann tests done, 7,134 were for diagnostic purposes, 4,930 were to test progress in treated cases and 664 were to confirm Laughlen screening results. To supplement the Wassermann reactions, 4,029 Kahn tests were carried out. The Laughlen screening test was used to exclude syphilis 9,796 times in antenatal cases, and 2,603 times in presumed non-syphilitic cases from V.D. clinics. In addition, to provide supplementary information, 245 specimens of cerebro-spinal fluid were examined by Lange's colloidal gold test, and in 190 the total protein content was estimated.

For outside authorities, 1,841 tests were made ; 1,216 Wassermann, 327 Kahn reactions, 166 tests for gonococcal infections, 75 Lange's gold tests and 57 total protein estimations.

The City V.D. clinics for female patients (and occasionally other clinics) continued to make use of the facilities for the culture of *N. gonorrhoeae* which have been available to them since 1946. Culture, combined with examination of dried smears, yields a higher percentage of positive results than given formerly by smears alone. The special transport medium—now used in places other than this laboratory, where it was invented—allows the gonococcus to be maintained alive on the swabs embedded in it (if necessary for some days) until it can be cultured in the laboratory. The number of specimens examined by culture this year amounted to 2,006, from 620 patients. *N. gonorrhoeae* was recovered 245 times from 153 patients, in 90 instances confirming a positive clinic smear, and 155 times where the smear examination had been negative. As in former years almost three quarters of the examinations were made for diagnosis and the rest for 'test for cure.'

*Trichomoniasis.*—Of 2,016 specimens examined for *Trichomonas vaginalis* 450 (22·4 per cent.) were found positive ; a result similar to last year's findings.

*Ophthalmia neonatorum.*—This year 536 specimens of exudate from the eyes of 251 children were examined for the presence of the gonococcus, 30 of these by culture. Three babies only were found to have gonococcal ophthalmia.

During these investigations by culture, meningococcus, a rare cause of ophthalmia, was found twice ; the pneumococcus was found once.

#### PUBLIC HEALTH—GENERAL CONTROL.

*Antenatal—Rh. Tests.*—Determination of the rhesus factor (Rh. antigen) was carried out on 10,549 specimens of blood from expectant mothers. Of these 403, about the same number as last year, were sent by general practitioners, and the rest came chiefly from antenatal clinics. Out of the total received 17·4 per cent. proved Rh. negative, and these, as usual, were investigated by the Blood Transfusion Service. Their examination revealed 33 women sensitized to the Rh. factor, which information will enable the clinicians to take precautions before childbirth.

*Tuberculosis.*—The number of specimens of sputum examined microscopically for the presence of *Mycobacterium tuberculosis* was 9,276, an increase of 1,792 on the number for last year. In 1,649 of them, *M. tuberculosis* was found.

A few samples of sputum and many other body fluids and exudates, urine, cerebro-spinal fluid, pus, etc., were investigated by the biological test as well as by microscopic examination. The numbers of these examinations performed were 342 microscopic and 200 biological. A small number of specimens was also examined by cultural methods.

*Milk Supply. Tuberculosis.*—There was a small decrease in the number of milks tested biologically for tubercle, 671, against 708 last year ; but the percentage of tuberculous samples has again fallen. Of 307 specimens of undesignated milk only one was found to be tuberculous. None was found in 120 designated milks. Eighty samples of the milk supplied to schools and 26 samples of that supplied to hospitals were examined and all yielded negative results.

From three other local authorities 138 milks were sent for examination. One of these proved to be tuberculous.

*Milk Supply. Bacterial Content.*—The milk supplies of the city, including school and hospital milk, were constantly under routine examination during the year to ensure compliance with the regulations governing bacterial content in designated milks, or with the department's standard for milk on sale as raw milk or for milk prior to

processing. The number of samples examined totalled 2,069 of which 1,870 (90·3 per cent.) were found to be satisfactory. The corresponding figures for 1950 were 2,122 samples of which 89·9 per cent passed the tests. The general good quality of the milk is maintained.

The following table gives more details of the examinations.

	Number of Samples	No. complying with standards	Per cent. Complying
<i>Hospital Supplies—</i>			
Raw (Certified ; T.T. ; Standard)	204	178	87·3
T.T. (Past.) ; Pasteurised ; Heat Treated ... ..	88	73	85·2
<i>Public Supplies—</i>			
Raw (Certified ; T.T. ; Standard.)	460	375	81·5
T.T. (Past.) ; Pasteurised ; Heat Treated ... ..	681	640	94·0
<i>School Supplies—</i>			
Pasteurised ... ..	160	149	93·1
<i>Milk on sale as raw milk, or Milk sampled prior to processing</i> ...	451	429	95·1
<i>Miscellaneous milks</i> ... ..	25	24	96·0

Another seven samples examined in relation to the efficiency of a plant, brought the total number of milk samples to 2,076.

*'Milk Bottles.*—Milk bottles are regularly examined to see that they are efficiently cleansed before being filled. This year 235 were examined of which 179 (76·2 per cent.) proved satisfactory, according to laboratory standards. The number found to comply with the standard is about 4 per cent. higher than last year.

Half-a-dozen aerated water bottles were also examined.

*Ice Cream.*—There was a further all-over improvement, judged bacteriologically, in the quality of the ice cream examined although fewer samples were submitted to the laboratory than in 1950. Results are set out in the table with the findings for 1950 for comparison.

Bacterial count per ml.	No. of Samples	Percentage 1951	Percentage 1950
0— 30,000 ... ..	161	85·6	78·3
30,000— 100,000 ... ..	13	6·9	10·5
100,000— 200,000 ... ..	3	1·6	3·0
200,000—1,000,000 ... ..	6	3·2	3·9
Over a million ... ..	5	2·7	4·2



These figures show that 85·6 per cent. of samples conform in total bacterial content to the high standard of certified milk.

Coliform bacilli were found to be present (in  $\frac{1}{100}$  ml.) in only 13 (6·9 per cent.) samples. Last year they were found in 13·6 per cent. of the samples.

*Synthetic cream.*—Eleven samples were examined and nine of them complied with the specification for standard milk.

*City Water Supply.*—Examinations of samples of water from Craigmaddie, Mugdock and Gorbals reservoirs, from the mains and other sources were carried out as in previous years. In all 691 samples were examined for bacterial content and for the particular micro-organisms which indicate contamination. The average bacterial counts of the water supplies to the mains are shown below. There was no unusual departure from the standard of purity associated with these.

					Average bacterial count per ml. at 37°C.	Average bacterial count per ml. at 22°C.
					No. of Samples	
Loch Katrine	...	...	...	...	204	2
Gorbals	...	...	...	...	50	18
						12
						29

In only 2 of these samples was typical *B. coli* found in quantities less than 50 ml.

*Public Baths Water.*—The swimming ponds of the public baths provided 255 samples of water for examination during the year. These are examined routinely to provide information on the effects of filtration and chemical treatment in controlling the bacterial content of the bath waters. In general results were satisfactory.

*Anthrax.*—In addition to material recorded under this heading in the section Infectious Diseases, 17 samples of goatskins and dried cattle hides entering the port were examined culturally and biologically for the Anthrax bacillus. *B. anthracis* was recovered from 3 specimens of goatskins, but not from any cattle hides.

*Plague.*—Examination of rats from ships and from the harbour, a precautionary measure to prevent the entry of plague, was continued routinely as in past years : 285 animals were examined, all with negative results.



*Yellow Fever.*—The demand for prophylactic inoculation against Yellow Fever by people going abroad has been greater this year. The laboratory has issued 3,145 doses, an increase over last year of 855.

*Insect Pests.*—As usual a few of these reached the laboratory for identification. This year there were cockroaches, beetles, a gnat larva, fly larvae and the louse mite. The last, *Pediculoides ventricosus*, was found infesting dried beans and feeding there on the larvae of beetles which had attacked the beans.

#### ORIGINAL INVESTIGATIONS.

*Dental Caries.*—Further bacteriological examinations of saliva were carried out in connection with experimental work undertaken by the Chief Dental Officer to determine the efficacy of an ammoniated dentifrice in reducing or preventing dental caries. Use of the dentifrice appeared to retard caries considerably. A final report on this investigation was published in the *Dental Record* in October, 1951.

*Paratyphoid infection in a dog.*—Work was continued on strains of *S. paratyphi-B* isolated from four members of a family and from their dog. This is probably the first time this organism has been isolated in Britain from a dog. It was concluded from epidemiological and bacteriological data that the dog was probably the cause of the family infection. A paper on this investigation has been accepted by the *Journal of Pathology and Bacteriology* for early publication.

*Diphtheria.*—Diphtheria in Glasgow is under constant survey and it is hoped to assemble shortly a record of the bacteriological and epidemiological features of the disease in Glasgow since 1946, when a paper was published on the disease during the previous fifteen years.

HARTLEY S. CARTER,  
*Bacteriologist.*

## TOTAL OF EXAMINATIONS FOR YEAR 1951.

## CITY OF GLASGOW. INFECTIOUS DISEASES.

*Diphtheria and General Throat Infections—*

						<i>Positive</i>	<i>Total</i>
Diphtheria	...	...	Suspects	...	...	129	4,329
			Control, etc.	...	...	164	679
			Typing	...	...	—	752
			Virulence Tests (Biological)	...	...	—	64
			Toxicogenicity Tests	...	...	—	178
Streptococcal Infections	...	...	Suspects	...	...	287	994
Staphylococcal Infections	...	...	Suspects	...	...	—	88
Vincent's Infections	...	...	Suspects	...	...	12	293
Penicillin Sensitivity Tests	...	...	...	...	...	—	30
Streptomycin Sensitivity Tests	...	...	...	...	...	—	12

*Gastro-Intestinal Infections—*

Enteric Fever	...	...	Suspects	...	...	22	740
(Typhoid, paratyphoid)	...	...	Control, etc.	...	...	132	623
			Water Works employees	...	...	—	59
			Paratyphoid outbreak	...	...	64	1,440
			(Nov., Dec.)	...	...	—	43
			Foodstuffs, swabs from utensils, etc.	...	...	—	43
Food Poisoning	...	...	Specimens from patients	...	...	523	2,671
(Salmonellosis)	...	...	Foodstuffs	...	...	—	28
			Shellfish—	...	...	—	124
			(Mussels—samples 10)	...	...	—	124
			(Whelks—samples 8)	...	...	—	124
Dysentery : Bacillary	...	...	Suspects	...	...	989	6,545
			Control, etc.	...	...	606	5,350
			Biochemical investigations (extra)	...	...	—	24
Amoebic	...	...	...	...	...	—	83
Other Forms—Giardia, etc.	...	...	...	...	...	—	15

*Tuberculosis*

Sputa	...	...	...	1,649	9,276
Various Specimens (micros. exams.)	...	...	...	—	342
Various Specimens (biological exams.)	...	...	...	—	200

*Venereal Diseases—*

Wassermann Test	...	...	...	—	12,728
Precipitation Test	...	...	...	—	12,462
Kahn Test	...	...	...	—	4,029
Colloidal Gold Test	...	...	...	—	245
Protein Test	...	...	...	—	190
Gonococcal smears, cultures and complement fixation tests	...	...	...	—	2,925
Ophthalmia neonatorum (smears and cultures)	...	...	...	9	536

Carry forward ... ..

68,097

TOTAL OF EXAMINATIONS FOR YEAR 1951—*Continued.*

	<i>Brought forward</i>	...	...	68,097
OTHER EXAMINATIONS—				
Blood : Rh factor	...	...	...	10,549
Blood (various infections)	...	...	...	69
Body fluids (urine, etc.)	...	...	...	311
Exudates	...	...	...	71
Faeces for worms	...	...	...	41
Faeces for occult blood	...	...	...	4
Swabs for <i>Trichomonas</i>	...	...	...	2,016
Hides from tannery for Anthrax infection	...	...	...	2
Worms (identification)	...	...	...	1
Insects (identification)	...	...	...	8
Miscellaneous	...	...	...	33
CITY OF GLASGOW. GENERAL PUBLIC HEALTH—				
City Milk Supplies	...	...	...	1,784
Hospital Milk Supplies	...	...	...	292
Ice cream	...	...	...	188
Milk Bottles	...	...	...	235
Water Supplies—routine	...	...	...	691
Water from Baths Department	...	...	...	255
Foodstuffs—fitness for consumption	...	...	...	11
Lemonade bottles 6, aerated water 2	...	...	...	8
PORT HEALTH AUTHORITY—				
Anthrax (goatskins and hides)	...	...	...	17
Plague (examination of rats)	...	...	...	285
Diphtheria (throat swab)	...	...	...	1
Foodstuffs—fitness for consumption	...	...	...	4
EDUCATION HEALTH SERVICE—				
Dental caries investigation—examination of saliva	...	...	...	45
OUTSIDE AUTHORITIES—				
<i>Department of Agriculture—</i>				
Waters from Barra	...	...	...	8
<i>Stirlingshire—</i>				
Tuberculosis (sputum, etc.—micros. exam.)	...	...	2,019	
Tuberculosis (various specimens—biological)	...	...	145	
Tuberculosis (milk—biological exam.)	...	...	62	
Gastro-intestinal infections	...	...	8,306	
Throat infections	...	...	672	
Venereal diseases	...	...	1,902	
Various other infections	...	...	334	
Penicillin sensitivity tests	...	...	37	
				13,477
<i>Carry forward</i>	...	...	...	98,503

TOTAL OF EXAMINATIONS FOR YEAR 1951—*Continued.*

<i>Brought forward</i> ... ..					98,503
OUTSIDE AUTHORITIES— <i>Continued.</i>					
<i>Clackmannanshire—</i>					
Tuberculosis (sputum, etc.—micros. exam.)	...				302
Tuberculosis (urine—biological exam.)	...	...			1
Gastro-intestinal infections	...	...	...	...	89
Throat infections	...	...	...	...	11
Venereal Diseases	...	...	...	...	2
Other infection	...	...	...	...	1
Penicillin sensitivity test	...	...	...	...	1
					<hr/> 407
<i>Clydebank—</i>					
Tuberculosis (milk—biological exams.)	...	...			76
					<hr/> 76
					<hr/> 98,986
					<hr/> <hr/>

CONTROL=specimens from hospital cases, contacts, etc.

## SECTION X.

## FOOD POISONING.

In 1951 outbreaks of food poisoning were more prevalent than in previous years; 86 outbreaks of *Salmonella* infections, accounting for 150 individual cases of illness, were reported, and there were nine outbreaks involving 300 persons where no definite organism was found to be responsible for the outbreak. Five deaths occurred in the *Salmonella* group. With the exception of one male aged 38 years who died of acute gastro-enteritis after two days' illness, all the deaths occurred in elderly individuals who were suffering from other disabilities and the combined diseases ran a more protracted course. Three deaths occurred in *S. enteritidis* and two in *S. typhimurium* infections.

The numbers involved in each outbreak are shown in the following table :—

No. of Patients.	Number of Outbreaks.	
	<i>Salmonella</i> Infections.	Non-Specific Illnesses.
1	65	2
2	10	—
3	8	—
4	1	1
5	—	1
6	1	—
7	—	1
8	—	1
12	—	1
31	1	—
50	—	1
210	—	1

## THE SEASONAL DISTRIBUTION IS SHOWN BELOW.

Type of Outbreak.	Number of Outbreaks.											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<i>Salmonella</i> Infections ...	1	3	4	—	7	14	9	7	15	12	5	9
Non-Specific Illnesses ...	1	—	1	1	1	1	—	2	—	—	1	1



*Types.*—(a) *Salmonella* infections, as will be seen from the above tables, were prevalent throughout the year with a higher concentration in the summer and autumn months. There was much diversity in the type of organism isolated, but *S. typhimurium*, as in previous years, dominated the picture.

Type of Organism.	No. of Outbreaks.	No. of Patients.
<i>S. typhimurium</i> ... ..	54	82
<i>S. enteritidis</i> ... ..	14	49
<i>S. newport</i> ... ..	8	8
<i>S. thomsoni</i> ... ..	3	3
<i>S. georgia</i> ... ..	1	1
<i>S. st. Paul</i> ... ..	1	1
<i>S. potsdam</i> ... ..	1	1
<i>S. montevideo</i> ... ..	1	1
<i>S. bovis mortificans</i> ... ..	1	1
<i>S. oregon</i> ... ..	1	1
<i>S. minnesota</i> ... ..	1	1

Most of these outbreaks were confined to individual cases of illness but it was frequently found on the investigation of the household contacts of such a case that there was a least one symptomless excretor in the household who gave no history of any clinical illness. The vehicle of infection in these instances was always undiscovered, the possible causative foodstuff having been destroyed in the interval elapsing between the sickening of the patient and the obtaining of a positive bacteriological report. The frequency, however, with which young children aged between nine months and two years appear in this group of cases and the fact that they were so often associated with either no other case in the household, or solely with the finding of the mother as a symptomless excretor, suggests that one item of diet alone could have been responsible for the illness, and as eggs often recur in the dietary of these children, it seems probable that they may have been the cause of infection. Such eggs are often only lightly cooked and might therefore convey the organism.

On one occasion a duck egg was almost conclusively proved to be the source of the infection. The white of such an egg had been beaten up raw with some other ingredients to form a creamy top layer for a jelly trifle and appears to have been the cause of the infection of six members of a family of seven. The seventh member, who was unaffected, ate no jelly trifle.

(b) Non-specific outbreaks were reported on nine occasions. Three of these were of considerable size and are further reported below; the others were small in size and were associated with various types of foodstuffs such as cake, cheese and ham. No specific organism was recovered and the illnesses were in the main of brief duration and without any serious consequences. In one household of ten persons, seven had symptoms developing over the period of a few days and, though resembling a case-to-case spread infection, no specific pathogen was isolated.

#### SELECTED OUTBREAKS.

*Specific Group.*—*Salmonella enteritidis* (var. Jena) was responsible for two outbreaks of note.

At the end of July three separate parties had luncheon or dinner meals in a city restaurant. In each of these parties one person developed an acute infection due to *S. enteritidis* (Jena) and each of these died—one of the acute infection and the two other of the effects of toxæmia complicating pre-existing disease (myxoedema in one and hypertension in the other). In each of the parties too, another person was found to have become a temporary symptomless excretor. The only common factor in these six meals was ice cream bought from a large wholesale producer, which might have become infected in the process of serving, though from what source was not discovered, no carrier being found among the staff. Approximately 200 portions of the ice cream was served in the restaurant during the day, yet these were the only cases reported to the Department.

A second outbreak, much larger in size, but fortunately with less serious consequences, occurred in September and was traced to pressed beef and pork prepared by a large wholesale bacon-curing firm in the city. Between the 28th August and the 24th September thirty-one cases of gastro-intestinal infection due to *S. enteritidis* (Jena) were reported in the city and 25 cases of a similar type occurred in a rural area in Ayrshire. All the Ayrshire cases and the majority of the Glasgow cases were found to be directly associated with the consumption of the pressed meat. Three of the Glasgow cases were secondary infections, being contracted by case-to-case spread from a person infected from the meat source. Two symptomless carriers were found upon examination of the works personnel, one of these being an elderly female whose duties include the cleaning of the moulds into which the prepared meat was poured. Upon the exclusion of the carriers

from work the notification of new cases quickly ceased ; but in view of the amount of possibly infected meat (eight hundredweights were made daily) and its widespread circulation over many multiple chain-stores in the South-West Scotland area remarkably few cases of actual illness came to light.

During the investigations into the above outbreak three cases of infection with *S. enteritidis* (var. Chaco) were also reported. No connection was established between these and the Jena outbreak but the source was thought to have been tinned Danish ham in one case and in the two others (in the same household) attributed by them to frying steak. The occurrence of this very rare type of organism in two widely separated parts of the city at the one time would, however, suggest that there was a common source which was undiscovered.

*Non-Specific Group.*—In January 300 members of the staff of a large engineering concern had a high tea in a city restaurant prior to a theatre evening. Two hundred and ten persons (191 in Glasgow and 19 residing outwith) suffered from nausea and sickness—in a few cases accompanied by diarrhoea—and investigation of the cases failed to reveal any specific pathogens but staphylococcus was recovered from the nose and throat of several of the food handlers. The vehicle of infection in this case appeared to have been the crust of the steak-pie, which seems to have been a constant item in the meal of those who were ill.

In the latter part of the year a large wedding reception was held in a city restaurant. Three hundred guests were provided with an elaborate Kosher-prepared meal, chicken being the main course, though many savouries, sauces and garnishes—tomatoes, mushrooms, sweet corn and fritters—were served during the meal. It was not found possible to assess the actual extent of illness resulting from this meal, but it was estimated that at least 50 persons had severe enteritis between 1 and 18 hours afterwards. Two or three elderly persons were sharply ill for several days but eventually they all recovered. No pathogens were recovered from the excreta of persons affected. During investigations, in which various items came under suspicion, it transpired that the invalid daughter of one of the kitchen staff had received a portion of chicken and had suffered a sharp—but bacteriologically non-specific—illness. Further follow-up of the chickens (160 had been prepared for the meal) showed that they had been killed 2-3 days previously and had been stored in the wholesaler's premises,

which were not adequately equipped for storage. Though not conclusively proved to have been due to this, the circumstantial evidence was highly suggestive of the chickens being the major causative factor.

The third outbreak was of rather a remarkable nature. Twelve pupils of an elementary school near the centre of the city became ill within five minutes of resuming school after the luncheon interval. Each of these children suffered from a sharp attack of nausea and vomiting, and within twenty minutes practically all had completely recovered though they presented the appearance of having suffered from a mild shock. In every case the history was the same. They had received from a schoolmate in the playground a cube of chocolate about five minutes before school commenced. This had been consumed, although the majority of the children stated that they did not like the taste. The source of this chocolate was then traced to a schoolmate who some three days previously, in the course of visiting his usual confectioner for "off the ration" commodities, had been presented with a box of 12 quarter-pound blocks of ration-free Cod Liver Oil Chocolate. It transpired that this chocolate had been purchased by the shopkeeper in 1946 and had remained unsold in his shop since then. Each bar had been priced at 1s. 6d. but no sale had been found for the product, though the manufacturers had put it on the market as an easy way of getting children to take Cod Liver Oil. One of the bars had been consumed by the boy himself over the previous two days and though he suffered no illness he admitted that its taste was not good and for this reason he had given away other portions to his schoolmates. The remaining eight bars were confiscated and passed to the City Analyst and also to the Bacteriologist. No pathogens were found in the chocolate but the City Analyst reported that chemical tests showed that the material had become rancid. Rancidity of fats is liable to happen where many unsaturated acids are present and therefore it is particularly liable to occur in Cod Liver Oil. The rancidity is due to the hydrolysis and oxidation of the fatty acids leading to the production of aldehydes and ketones, and it is presumed that these acted as toxic substances in production of the illness of the 12 children.



## FOOD.

SUMMARY OF OPERATIONS UNDER THE FOOD AND DRUGS (ADULTERATION) ACT, 1928 : THE PUBLIC HEALTH (SCOTLAND) ACT, 1897 : THE MILK AND DAIRIES ACTS : and ALLIED ACTS, ORDERS AND REGULATIONS FOR THE YEAR ENDED 31ST DECEMBER, 1951.

*The Food and Drugs (Adulteration) Act, 1928.*—The administration of this Act was continued as formerly. The appended list provides details of the nature and numbers of samples of food and drugs submitted to the Public Analyst. A total of 5,279 samples, 1,329 formal and 3,950 informal, were taken of 142 listed varieties. Twenty (1·50 per cent.) of the former and 123 (3·11 per cent.) of the latter were reported as adulterated. Last year the corresponding results were 37 (2·79 per cent.) and 72 (1·63 per cent.) respectively. Nine court actions were taken under the above Act and convictions obtained in each case, with the imposition of penalties amounting to £29, this is thirteen less than last year and £21 less in penalties imposed. Court proceedings were also taken for five contraventions of the Food Standards (General Provisions) Order, 1944, one of which concerned an offence under the Fish Cakes Order, 1950, which was continued from last year. Unfortunately the diet had to be deserted *simpliciter* after two continuations, owing to the critical illness of the late City Analyst who was to have been the principal witness. Four convictions under the Order were obtained and penalties amounting to £20 imposed. One contravention of the Milk and Dairies Act, 1914, resulted in a penalty of £5 and one person was fined £2 for a contravention of the Glasgow Police (Amendment) Act, 1890, in respect of the sale of unsound tomatoes from a vehicle in the street. An ice-cream vendor was charged under the Ice-Cream Regulations with failing to maintain the required standard of cleanliness of his vehicle, but the charge was found not proven. Details of these proceedings are appended.

*Section 8—Registration of Butter Factories and Wholesale Dealers in Margarine.*—The number of butter factories on the register at the end of the year was 12, 3 less than last year. Six wholesale dealers in margarine were removed from the register owing to the premises changing to other types of business. Details of the numbers on the register at 31st December are as follows :—

Margarine Factories	...	...	...	...	...	...	1
Wholesale Dealers in Margarine	...	...	...	...	...	...	112
Factories of or wholesale dealers in milk blended butter	...	...	...	...	...	...	—
Butter Factories	...	...	...	...	...	...	12



## ABSTRACT OF TOTAL SAMPLES EXAMINED DURING 1951.

Article.	Informal.		Statutory.		Percentage adulterated.		Percentage of Samples taken in each Group to Total.	
	No. Taken	No. Non-Gen.	No. Taken	No. Non-Gen.	Infor. %	Stat. %	Infor. %	Stat. %
Milk ... ..	2,782	32	876	5	1.15	0.57	70.43	65.91
Milk Products (Butter, Cheese, etc.) ... ..	33	—	43	—	—	—	0.84	3.24
Meats and Meat Food Products ... ..	244	7	157	11	2.87	7.64	6.18	11.81
Cereals, etc. ... ..	60	1	78	—	1.66	—	1.52	5.87
Spirituous Liquor ... ..	38	3	10	—	7.89	—	0.96	0.75
Drugs ... ..	243	3	23	—	1.23	—	6.15	1.73
Flavourings and Condiments ... ..	97	—	17	—	—	—	2.46	1.28
Ice-cream ... ..	192	71	7	3	37.0	42.9	4.86	0.53
Miscellaneous Foods ... ..	261	6	118	1	2.30	0.85	6.60	8.88
	3,950	123	1,329	20	3.11	1.50	100.00	100.00

## ABSTRACT OF INFORMAL AND STATUTORY SAMPLES OF SWEET MILK EXAMINED DURING 1951.

Month.	Informal.				Statutory.			
	No. exam-ined.	No. Non-Gen.	Average per-centage Composition.		No. exam-ined.	No. Non-Gen.	Average per-centage Composition.	
			Fat. %	Non-Fat. %			Fat. %	Non-Fat. %
January ...	235	3	3.86	8.88	76	1	3.73	8.84
February ...	242	—	3.81	8.90	77	—	3.67	8.85
March ...	234	3	3.78	8.91	75	—	3.69	8.90
April ...	237	1	3.77	8.84	76	—	3.70	8.73
May ...	253	3	3.76	8.78	77	1	3.76	8.78
June ...	217	6	3.71	8.95	76	—	3.57	8.93
July ...	162	2	3.73	8.82	76	—	3.67	8.91
August ...	214	4	3.79	8.78	58	1	3.63	8.81
September ...	227	7	3.88	8.75	67	—	3.89	8.81
October ...	265	1	3.92	8.81	69	1	3.86	8.79
November ...	249	—	3.99	8.70	74	—	3.95	8.74
December ...	247	2	3.89	8.65	75	1	3.83	8.68
	2,782	32	3.82	8.81	876	5	3.75	8.81

Percentage Adulterated—1.15.

Percentage Adulterated—0.57

*Artificial Cream Act, 1929.*—There are no manufacturers or dealers in the City registered with the Food and Drugs Authority.

*The Public Health (Preservatives, etc., in Food) Regulations.*—There were 7 contraventions of these Regulations during the year compared with 15 last year. The articles of food concerned consisted of butcher's mince and sausages. Three samples of mince were found to contain preservatives during the prohibited period, October to May, inclusive, and four samples of sausages contained preservatives in excess of the limit specified. One of the respondents was convicted of a third offence. The following list shows the food in which preservatives were found together with their nature and amount. It will be observed that one sample of sausages contained 1,388 parts of sulphur dioxide (SO<sub>2</sub>) per million parts of sausage.

ABSTRACT OF ARTICLES OF FOOD IN WHICH PRESERVATIVES, ETC., WERE FOUND AND THE NATURE AND AMOUNT DURING YEAR ENDED 31ST DECEMBER, 1951.

Nature of Article.			Number examined.	Number in which Preservatives, etc., were found.	Nature of Preservative, etc.	Parts per Million.	
						Highest.	Lowest.
Beer	...	...	13	4	Sulphur Dioxide	38	6
Cider	...	...	1	1	„ „	— 64	—
Gelatine	...	...	16	12	„ „	640	64
Glace Fruit	...	...	14	4	„ „	64	10
Jams	...	...	15	12	„ „	35	10
Margarine	...	...	20	20	Borax	0.25%	0.14%
Meat Pie	...	...	5	1	Sulphur Dioxide	— 230	—
Mince	...	...	44	10	„ „	1,113	51
Raisins	...	...	29	4	„ „	128	19
Sausage Rolls	...	...	3	3	„ „	314	25
Sausages	...	...	295	213	„ „	1,388	6
Table Jellies	...	...	31	9	„ „	38	19
Vegetables, Dried	...	...	3	2	„ „	211	166

## THE FOOD AND DRUGS (ADULTERATION) ACT, 1928.

*Table showing Nature and Number of Total Samples procured and examined during 1951.*

Nature of Sample.	Informal.		Statutory.	
	No. Taken.	No. Non- genuine.	No. Taken.	No. Non- genuine.
Aerated Waters ... ..	15	—	—	—
Alum ... ..	3	—	—	—
Almonds, Ground ... ..	1	—	—	—
Arrowroot ... ..	—	—	4	—
Aspirin ... ..	11	—	—	—
Baking Powder ... ..	8	—	6	—
Barley and Barley Flour ... ..	1	—	1	—
Beans, Canned ... ..	1	—	—	—
Beer and Stout ... ..	17	—	—	—
Bicarbonate of Soda ... ..	13	—	2	—
Black Pudding ... ..	7	—	—	—
Blaud's Pills ... ..	1	—	—	—
Boracic Acid ... ..	1	—	—	—
Borax ... ..	10	—	—	—
Borax and Honey ... ..	4	—	—	—
Brose Meal ... ..	2	—	8	—
Butter ... ..	5	—	22	—
Cakes, Assorted ... ..	11	—	—	—
Cake Decorations ... ..	3	—	—	—
Calcium Lactate ... ..	3	—	—	—
Caraway, Ground ... ..	1	—	—	—
Cascara Sagrada ... ..	9	—	—	—
Celery Salt ... ..	2	—	—	—
Cheese ... ..	14	—	13	—
Chemical Food ... ..	7	—	—	—
Cider ... ..	1	—	—	—
Cinnamon ... ..	9	—	2	—
Cloves ... ..	2	—	—	—
Cocoa ... ..	3	—	9	—
Coconut, Desiccated ... ..	8	—	6	—
Coffee ... ..	4	—	13	—
Coffee with Chicory ... ..	3	—	—	—
Cold Cream ... ..	1	—	—	—
Cooking Fat ... ..	10	—	11	—
Cornflour ... ..	12	1	13	—
Crabmeat ... ..	1	—	—	—
Cream, Double ... ..	2	—	—	—
Cream, Synthetic ... ..	12	—	—	—
Cream of Magnesia ... ..	1	—	—	—
Cream of Tartar ... ..	20	—	4	—
Currants ... ..	2	—	6	—
Curry Powder ... ..	9	—	4	—
Custard Powders ... ..	10	—	9	—

THE FOOD AND DRUGS (ADULTERATION) ACT, 1928—*Contd.*  
*Table showing Nature and Number of Total Samples procured and examined during 1951—Contd.*

Nature of Sample.	Informal.		Statutory.	
	No. Taken.	No. Non-genuine.	No. Taken.	No. Non-genuine.
Dates ... ..	1	—	1	—
Egg, Dried ... ..	1	—	1	—
Figs ... ..	—	—	3	—
Fish Cakes ... ..	5	1	—	—
Fish Dressing ... ..	2	—	—	—
Fish Pastes ... ..	7	—	—	—
Flavourings ... ..	10	—	—	—
Flour, S.R. and Ordinary ... ..	2	—	4	—
Flowers of Sulphur ... ..	3	—	—	—
Friar's Balsam ... ..	1	—	1	—
Fruits, Glace ... ..	11	—	3	—
Fruit Loaf ... ..	1	—	—	—
Fruit Pudding ... ..	3	—	—	—
Gelatine ... ..	15	—	1	—
Gin ... ..	1	—	—	—
Ginger ... ..	8	—	6	—
Glucose D ... ..	—	—	1	—
Glycerine ... ..	2	—	—	—
Glycerine of Borax ... ..	1	—	—	—
Gravies and Gravy Powders ... ..	4	—	—	—
Gregory's Powder ... ..	4	—	4	—
Herbs, Dried ... ..	8	1	—	—
Honey ... ..	3	—	—	—
Hydrogen Peroxide ... ..	4	—	—	—
Ice Cream ... ..	192	71	7	3
Instant Postum ... ..	1	—	—	—
Iodine Solution ... ..	1	1	—	—
Iodine, Tincture of ... ..	10	2	3	—
Jams and Jellies ... ..	15	—	—	—
Lard ... ..	—	—	8	—
Lemon Curd ... ..	2	—	—	—
Liquid Fruit Pectin ... ..	1	—	—	—
Liquid Paraffin ... ..	5	—	—	—
Liquorice, Powdered ... ..	7	—	—	—
Macaroni and Vermicelli ... ..	1	—	7	—
Maple Syrup ... ..	—	—	1	1
Margarine ... ..	4	—	16	—
Meat Paste ... ..	22	—	—	—
Meat Pies ... ..	5	—	—	—
Meat, Potted, etc. ... ..	16	—	—	—
Milk, Condensed ... ..	12	—	—	—
Milk of Magnesia ... ..	1	—	—	—

THE FOOD AND DRUGS (ADULTERATION) ACT, 1928—*Contd.*

*Table showing Nature and Number of Total Samples procured and examined during 1951—Contd.*

Nature of Sample.	Informal.		Statutory.	
	No. Taken.	No. Non-genuine.	No. Taken.	No. Non-genuine.
Mince ... ..	11	1	33	4
Mincemeat ... ..	10	—	—	—
Mint, Dried ... ..	1	—	—	—
Mustard Compound ... ..	2	—	5	—
Nutmeg ... ..	2	—	—	—
Oat Meal and Flour ... ..	5	—	3	—
Oil, Almond ... ..	4	—	—	—
Oil, Camphorated ... ..	4	—	3	—
Oil, Castor ... ..	11	—	—	—
Oil, Eucalyptus ... ..	8	—	—	—
Oil, Olive ... ..	15	—	—	—
Oil, Salad ... ..	1	—	—	—
Ointments, Medicinal ... ..	22	—	—	—
Peas, Canned ... ..	1	—	—	—
Peel, Candied ... ..	5	—	1	—
Peppers ... ..	3	—	1	—
Plasmal ... ..	1	—	—	—
Pop Corn and Kandy Corn ... ..	2	—	—	—
Potassium Permanganate ... ..	4	—	—	—
Potato Crisps ... ..	10	—	—	—
Prunes ... ..	—	—	7	—
Pudding Mixture ... ..	1	—	—	—
Raisins ... ..	9	—	20	—
Rice and Rice Flour ... ..	5	—	15	—
Rum ... ..	1	1	—	—
Saccharin ... ..	2	—	—	—
Sage and Onion Stuffing ... ..	2	—	—	—
Sago ... ..	2	—	—	—
Salad Cream ... ..	13	—	—	—
Salt ... ..	3	—	—	—
Salts, Medicinal ... ..	28	—	3	—
Sauces ... ..	19	—	—	—
Sausages ... ..	175	6	120	7
Sausage Rolls ... ..	3	—	—	—
Semolina and Farola ... ..	6	—	12	—
Soups ... ..	2	—	—	—
Soya Flour ... ..	3	—	—	—
Spice ... ..	10	—	1	—
Sponge Mixture ... ..	3	—	—	—
Suet ... ..	2	—	4	—
Sugar ... ..	3	—	4	—
Sulphur, Sublimed ... ..	2	—	1	—



THE FOOD AND DRUGS (ADULTERATION) ACT, 1928.—*Contd.*

*Table showing Nature and Number of Total Samples Procured and Examined during 1951.—Contd.*

Nature of Sample.	Informal.		Statutory.	
	No. Taken.	No. Non-genuine.	No. Taken	No. Non-genuine
Sweet Milk ... ..	2,782	32	876	5
Syrup of Figs ... ..	10	—	—	—
Table Jellies ... ..	28	4	3	—
Tapioca ... ..	2	—	2	—
Tartaric Acid ... ..	2	—	—	—
Tea ... ..	—	—	2	—
Tomato Puree ... ..	2	—	—	—
Vegetables, Dried ... ..	3	—	—	—
Vinegar, Malt ... ..	10	—	3	—
Vinegar, Non-brewed ... ..	6	—	—	—
Wheat Flour ... ..	2	—	—	—
Whisky ... ..	12	2	10	—
Wines, Alcoholic ... ..	6	—	—	—
Wines, Non-alcoholic ... ..	16	—	—	—
Witch Hazel ... ..	1	—	—	—
	<u>3,950</u>	<u>123</u>	<u>1,329</u>	<u>20</u>

*The Public Health (Scotland) Act, 1897—Section 43—Unsound Food.*—As in former years a considerable amount of the food inspectors' time has had to be given up to the investigation of complaints regarding the purchase of food alleged, for various reasons, to be unfit for human consumption. Many of these complaints are made, in the first instance, to the respective police divisions after normal duty hours. In order to enable an examination of the article to be made at the earliest possible moment, an arrangement was made during the year to provide each police division with a list of the names and addresses, with telephone numbers in three cases, of food inspectors able to proceed on call to carry out an examination. This arrangement has already proved successful in narrowing the time lag between purchase and inspection. It overcomes the difficulty of assessing after an interval of time the condition of the article when it was purchased. It has been particularly helpful in those cases of seizure of alleged unsound food in which refrigeration accelerates deterioration, as in the case of certain soft fruits. These complaints include alleged unsoundness, the presence in the articles of extraneous matter (e.g., insects, needles, nails, metal parts of equipment, glass splinters or milk discs in milk bottles, etc.),

and contamination of food containers. One very common complaint concerns the contamination of mineral waters by chemical disinfectants, etc.

All complaints are carefully investigated and methods of production checked with the factory managers. All mineral water factories in the City are reasonably well conducted, and great care is taken to avoid contamination of the products. The City Analyst invariably supplies the inspector making enquiry with prior information concerning the degree of contamination. Where it is found that the best practicable steps have been taken to produce a clean and wholesome article of food, no further action is taken by the Department.

It is the practice in many of these factories to use an antiseptic detergent solution to cleanse and sterilize the plastic type screw stoppers for closing bottles, as they cannot withstand high temperatures. This process, in spite of great care, sometimes results in imperfect rinsing of the chemical agent from between the rubber washer and the stopper. When used again for a full bottle the contents become tainted by the chemical. Frequently lemonade bottles are used by members of the public to hold paraffin oil, etc., and detection of the taint in time to prevent contamination is not always easy.

Proceedings against a vendor for the sale of unsound food can only be taken where it can be clearly established by corroborative evidence that he sold or exposed for sale, an article in that condition, and this evidence is not always available. The department cannot become involved in civil claims for damages but copies of certificates of analysis are granted on request on payment of the Analyst's fee of £1 1s. One interesting instance of a claim for damages against a seller alleging resultant sickness was lodged on behalf of a client during the year. A cream sandwich biscuit, one of a package purchased in a City shop was found to contain a patch of vivid orange colour. Sickness was alleged to have resulted from the appearance of this colouring matter as it was thought to be a portion of a "lipstick." An examination by the City Analyst, including exposure to ultra-violet light, revealed the offending matter to be simply a concentrated small portion of the vegetable colouring used in the preparation of the cream filling and to be quite harmless. There were 175 complaints of this nature made and investigated throughout the year. One street vendor was convicted of an offence in respect of the sale of unsound food and was fined £2.

*Inspection of Food and Food Premises.*—During the year, 9,598 inspections of markets, stores, shops and other places where food is handled, were made. Of the considerable quantity of food examined, 1,747 lots were destroyed or passed as suitable only for animal or poultry food, the total quantity being 125 tons, 13 cwts., 82½ lbs. These foods consisted principally of canned food, and the experience of many officers of United Kingdom local authorities has been shared in Glasgow in respect of imported canned bacon—gammons and shoulders. A high proportion of these expensive products (over 20 tons), imported chiefly from European countries, has been condemned as unsound. In many cases these cans of bacon ranging in weight from under 5 lbs. to over 20 lbs. are encased in very light metal and are easily damaged during transport, while the process of cooking in many cases does not appear to have been carried through at such temperatures and for such times as would ensure sterilization throughout the entire substance. The fact that storage under refrigeration cannot be ensured at all stages, increases the risk of spoilage.

During the year attention was directed to the importation into the City from a Mediterranean country of a quantity of fresh table apples dispatched to city brokers through the Port of Dover. A quantity of these apples had been found to contain traces of arsenic trioxide to the extent of 0·003 grain per lb. This amount, although lower than the maximum recommended by Royal Commission, called for further investigation. Examination, however, revealed the traces of arsenic trioxide to be insufficient to justify seizure of the fruit. The necessity for the use of these chemical insecticides in the growing of several kinds of fruit should be borne in mind by consumers, and apples, pears, grapes, plums, etc., should be washed before being eaten. Apart from the question of contamination by insecticide spray, the fact that fresh fruit is subjected to so much handling by so many people, should be sufficient to remind consumers of the advisability of such a precaution.

During the year, 456-2½ kilo. cans of Italian Tomato Paste were detained for further examination for the presence of suspected excess copper. Samples submitted for analysis were found to contain copper in excess of the limits recommended by the Society of Port Medical Officers of Health, viz., 100 parts per million. The consignment was condemned and destroyed.

The question of imposing limits of metallic substances in food is at present receiving the attention of a sub-committee of the Ministry of Food.

An investigation into the source of rodent contamination of a pre-packed ice-cream powder delivered to a City dealer was made by officials of three London Burghs on information supplied to them by this Department. The contamination was of such a nature that court action would have been taken against the supplier, had it been possible to provide corroborative evidence of the condition of the powder when the container was opened. Unfortunately, this could not be obtained. The powder, however, was condemned and destroyed.

During the year a consignment of almost 9 tons of butter beans imported from Burma and which had been distributed to retail premises throughout the county areas around Glasgow and later recalled to a food store for further examination, was found to be extensively infested with Mexican Bean Beetles (*Spermophilidas Zabrates*). The beetles were found to be alive in the beans but being tropical insects storage at a temperature below 68°F. destroyed them. Their bodies, however, remained in a large proportion of the beans. Hand-picking and sorting proved the only practical remedy and this being provided by the Importers, the beans were again examined when 84 sacks each of 200 lbs. were released for human food and the balance of 21 sacks disposed of to a manufacturer of animal feeding stuffs.

During the year 37 notices to cleanse, limewash or repair, in connection with food premises, and 41 notices of contraventions of Regulations in regard to food premises generally were issued. These notices and verbal requests to remedy unsatisfactory conditions were complied with.

*The Milk (Special Designations) (Scotland) Order, 1951.*—The outstanding feature of importance to the milk industry of the country during the year has been the revocation of all previous Orders relating to designated milks and the introduction as from the 1st June of above Order. The new Order has co-ordinated all amendments to earlier statutes and introduced many new requirements. The designation "Heat-Treated" has been terminated as from 31st December and no application for a licence to use the designation "Standard" can be accepted after 30th September, 1952, while any such Standard licence granted before that date shall not remain in force after 30th September,



1954. Applications by producers for licences to use the designation "Certified" or "Tuberculin-Tested" must, after 1st October, 1954, be in relation to milk produced from herds which are "Attested Herds," in accordance with the Tuberculosis Attested Herds Scheme, 1950. Licences granted now remain in force for a period of five years from 1st January, 1952, unless suspended or revoked as provided for in the Order. The terms of the Order provide for a wide scope of control while giving the holder of a licence a strong protection by his rights of appeal to independent tribunals through the Secretary of State. The terms of the Order are exacting for both the dairyman and the Local Authority—specifically defined provisions are laid down in regard to sampling and laboratory technique. The bacteriological standards remain substantially the same as formerly except that the Methylene Blue Reductase Test, which has been the subject of investigation (J. Dairy Research, 1950), has been abandoned in all cases. It is considered by the scientists that its reliability for predicting the keeping quality of milk, especially in winter, is poor, and cannot be recommended.

Provision is made in the Order for the designation "Sterilized." This type of milk was offered for sale to the Glasgow public about 10 years ago but did not prove popular. It is unlikely to create a demand here where satisfactory Pasteurised milk is available, free from the cooked flavour associated with high temperature processing to which so many consumers take objection.

Four hundred and fifty-three samples of Certified and Tuberculin-Tested milk were taken for examination throughout the year. One hundred and eighteen were examined biologically and gave negative results for the presence of tubercle bacilli. Three of seven samples of Standard milk were likewise examined with negative results. Of the eight Heat-Treatment licences in operation during the year, seven holders of these licences had new plants installed or adjustments to existing plants made, when licences to use the designation "Pasteurised" were granted in lieu.

One licence holder allowed his licence to lapse as from 31st December, the processing of milk being discontinued from the premises to which it related and the business became absorbed in another company. There are therefore 23 licensed pasteurisers in the City at 31st December. These plants continue to engage the attention of the inspectors, both during processing and after washing and sterilizing are carried out. Samples are taken for examination and results notified



to licencees and on special forms to the Department of Health. The appended table shows the grades of designated milk dealt in by dairymen in the City with the average daily sales and number of producers and dealers. Two Standard producers were granted licencees to use the designation "Tuberculin-Tested" in relation to the milk produced by their herds, before the end of the year. The sales show a considerable drop from last year.

CERTIFIED—						1951	1950	1949
Producers	...	...	...	...	...	2	2	2
Dealers	...	...	...	...	...	666	357	328
Total Average Daily Sales (Gallons)						3,545	3,883	3,211

TUBERCULIN-TESTED—								
Producers	...	...	...	...	...	31	29	24
Bottling Establishments	...	...	...	...	...	—	9	6
Dealers	...	...	...	...	...	566	600	532
Total Average Daily Sales (Gallons)						*3,883	†3,956	‡3,532

STANDARD—								
Producers	...	...	...	...	...	—	2	5
Bottling Establishments	...	...	...	...	...	—	—	—
Dealers	...	...	...	...	...	—	—	—
Total Average Daily Sales (City Producers only) (Gallons)						—	104	236

PASTEURISED—								
Pasteurising Establishments	...	...	...	...	...	23	16	11
Dealers	...	...	...	...	...	1,223	502	670
Total Average Daily Sales (Gallons)						§79,717	80,284	65,700

HEAT TREATED—								
Heat-Treating Establishments	...	...	...	...	...	—	8	11
Total Average Daily Sales (Gallons)						—	9,952	16,598

\* Includes 1,979 gallons Tuberculin-Tested (Pasteurised).

† Includes 1,738 gallons Tuberculin-Tested (Pasteurised).

‡ Includes 1,429 gallons Tuberculin-Tested (Pasteurised).

§ Includes Heat-Treated Milk.

1,141 samples of the foregoing were taken during the year. All were submitted to the City Bacteriologist and the City Analyst for examination regarding their conformity with the requirements of the Orders. In the following tables the results are set out in detail:—

# RESULTS OF EXAMINATIONS OF DESIGNATED MILK (1)

BACTERIOLOGICAL EXAMINATION—		CERTIFIED.		TUBERCULIN TESTED.		STANDARD.	
		(a) Not more than 30,000 Bacteria per ml.		(a) Not more than 200,000 Bacteria per ml.		(a) Not more than 200,000 Bacteria per ml.	
		(b) No Coliform Bacillus in 1/10 ml.		(b) No Coliform Bacillus in 1/100 ml.		(b) No Coliform Bacillus in 1/100 ml.	
Number examined	...	...	202	...	251	...	7
Number conforming to all requirements	...	...	150	...	218	...	7
Number exceeding count only	...	...	15	...	11	...	—
Number exceeding count and having coliforms present	...	...	7	...	5	...	—
Number conforming to count but having coliforms present	...	...	30	...	17	...	—
Agar Count per ml. { Highest	...	...	1,000,000 +	...	1,000,000 +	...	109,000
Lowest	...	...	500	...	1,000	...	9,000
Presence of Coliforms { +	...	...	165	...	229	...	7
—	...	...	37	...	22	...	—
CHEMICAL EXAMINATION—							
Fat Minimum 3% { Number 3% or over	...	...	199	...	240	...	7
Number below 3%	...	...	3	...	—	...	—
Average Butter Fat content	...	...	3.96	...	4.05	...	4.27

# RESULTS OF EXAMINATIONS OF DESIGNATED MILK (2).

		*TUBERCULIN TESTED (PASTEURISED).		PASTEURISED.		HEAT TREATED.	
		(a) Not more than 30,000 Bacteria per ml.		(a) No Coliform Bacillus in 1/100 ml.		(a) Not more than 2.3 Lovibond Blue Units (Phosphatase Test.)	
		(b) No Coliform Bacillus in 1/10 ml.		(b) Not more than 2.3 Lovibond Blue Units.		(b) No Decolorisation prior to 12 noon on day following taking of sample.	
		(c) Not more than 2.3 Lovibond Blue Units (Phosphatase Test).		(Phosphatase Test)			
Number examined	...	...	113	...	438	...	130
Number passing each Test	...	...	103	...	418	...	123
Number failing in one or more of the Tests	...	...	10	...	20	...	7
Milk-Fat Test { No. Satisfactory	...	...	113	...	438	...	130
No. Unsatisfactory	...	...	—	...	—	...	—
Average Butter Fat content	...	...	3.77	...	3.75	...	3.74

\* As from 1/6/51 tests as for Pasteurised.

The tables show further improvement in the bacteriological standard of these milks, 89·30 per cent. of the samples examined conforming with the terms of the Orders, compared with 88·53 per cent. in 1950, which latter figure represented an improvement on 1949. Chemical examination showed three samples to be slightly deficient in fat, the remainder being normal. The quality standards of these milks also show an improvement over last year in all cases.

*Milk Supply to the Hospitals of the Western Regional Hospital Board.*—This service to the Board was continued as formerly and indeed 96 additional samples to last year's total were taken for examination. The results are as follows :—

				Examined	Failed
Certified	...	...	...	11	2
Tuberculin-Tested	...	...	...	291	25
Standard	...	...	...	5	—
Pasteurised	...	...	...	75	12
Heat-Treated	...	...	...	11	—
				<hr/> 393	<hr/> 39

These results show a marked improvement on the results of last year when 45 samples failed from a total of 296 samples. The Heat-Treated designation is of course terminated as from 31st December. In addition to above examinations 26 of the samples—2 of Certified and 24 of Tuberculin-Tested milk—were examined for the presence of tubercle bacilli with negative result.

*Examination of Ordinary Market Milk for the presence of Tubercle Bacilli.*—This service has been continued during the year and consists of the examination of milk arriving at city creameries for sale in the liquid market. In all cases this milk is destined to be pasteurised before distribution and consists of the bulked milk of various producers, most of which is Tuberculin Tested. Of the total milk produced within the area of the Scottish Milk Marketing Board, fully 94 per cent. was from herds licensed to produce Tuberculin Tested milk, as given in the returns of the Board for December, 1951. This percentage is steadily increasing. With the declaration of the surrounding areas of supply of city milk as "Eradication Areas" in 1952 and 1953 and the expectation of the early declaration of the city to be within a "Specified Area" this service may be reviewed. Two hundred and ninety-six samples of this raw milk were examined biologically and none was

found infected with tubercle, compared with one positive sample last year from 289 samples. The following table gives the figures for the three preceding years with the counties where the milk was produced.

SAMPLES OF PRODUCERS' MILK SUPPLIES EXAMINED FOR THE  
PRESENCE OF TUBERCLE BACILLI.

County.	1951		1950		1949	
	No. Examined.	No. Tuberculous.	No. Examined.	No. Tuberculous.	No. Examined.	No. Tuberculous.
Ayr ... ..	148	—	165	1	185	1
Dunbarton ... ..	14	—	7	—	6	1
Lanark ... ..	118	—	65	—	66	2
Renfrew ... ..	—	—	39	—	18	—
Stirling ... ..	16	—	13	—	8	—
	<u>296</u>	<u>—</u>	<u>289</u>	<u>1</u>	<u>283</u>	<u>4</u>

*Bacterial Counts of Ordinary Market Milk.*—Three hundred and twelve samples were examined bacteriologically. The results are as follows :—

Number Examined.	Average Number of Bacteria per ml.					Coliform Organisms in 1/100 ml. (2 days).	
	Under 100,000.	100,000 to 200,000.	200,000 to 500,000.	500,000 to 1,000,000.	Over 1,000,000.	—	+
312	279	14	11	3	5	286	26

From the aspect of bacterial count 243 or 87·10 per cent. of the 279 samples with less than 100,000 bacteria per millilitre were of Certified quality compared with 216 or 82·13 per cent. of the 263 in this category last year. Two hundred and ninety-three (93·91 per cent.) of the total number of samples taken were of Tuberculin-Tested quality compared with 275 (88·42 per cent.) in 1950. Coliforms were absent from 286 (91·67 per cent.) compared with 275 (88·42 per cent.) in 1950.

All samples were submitted for chemical analysis and showed 11 to be low in solids not fat. The average fat content of the samples was 0·28 per cent. lower than those milks last year at 3·51 but the solids not fat at 8·83 per cent. was very slightly higher. The bacteriological results show an improvement on the results of last year.

*Undesignated Raw Milk as Retailed in the City.*—Thirty-two samples of this raw milk as retailed from shops or from vehicles in the City were taken for examination. Of the 17 samples submitted for biological examination none was found to be tuberculous. Of 20 samples submitted in 1950 one sample gave a positive result. The sale of this type of milk

will not be permitted within Specified Areas. The Order to include the City within such an Area has had to be postponed until 1952. The appended table gives results of bacteriological examinations :—

#### BACTERIAL COUNTS OF RAW UNDESIGNATED MILK.

Number Examined	Average Number of Bacteria per ml.					Coliforms in 1/100 ml. (2 days).	
	Under 30,000	30,000 to 100,000	100,000 to 200,000	200,000 to 500,000	Over 500,000	—	+
32	28	3	—	1	—	30	2

#### NON-DESIGNATED DAIRY FARMS WITHIN THE CITY.

Seventeen samples of the milk produced from those six farms were examined during the year with the following result :—

No. Taken	Bacterial Count under 200,000	Over 200,000	Coliforms in 1/100 ml.		Biological Positive	Examination Negative
			—	+		
17	16	1	16	1	1	6

As will be observed, of the seven samples submitted to biological test one proved positive. This milk supply was immediately withdrawn from sale until after it had been pasteurised. The affected cow was found and slaughtered and the remainder of the herd was subsequently dispersed, leaving five undesignated herds at 31st December. The sale of this type of milk by retail will be illegal in specified areas.

*School Milk Supply.*—Pasteurised milk is supplied to City schools by four contractors. There were 160 samples of this milk examined and no sample was found to be infected with tubercle bacilli. The following Table gives a summary of results of the 160 samples submitted in terms of the Milk (Special Designations) Order. Thirteen of the samples failed in one or other of the two prescribed tests.

#### SCHOOL MILK (PASTEURISED).

No. Examined.	No. passing both Phosphatase and Coliform Tests.	No. failing Phosphatase Test only.	No. failing Coliform Tests only.	No. failing both Tests	No. Tuberculous.	Average Fat Solids.	Average Non-Fat Solids.
160	147	2	11	—	—	3.80	8.76

The quality standards of these milks are being maintained at high level and this year are above the average for the last seven years which was 3.72 and 8.69 respectively.



The following table shows the average daily quantity supplied each month with the number of school days in each. The total consumption this year amounted to 1,350,554 gallons, an increase of 22,500 gallons over last year.

#### AVERAGE DAILY QUANTITIES SUPPLIED.

Month.	Gallons.	School Days.	Month.	Gallons.	School Days.
January ...	6,102	19	July ...	†15,210	*—
February ...	6,570	20	August ...	†62,611	*—
March ...	6,498	16	September ...	6,714	19
April ...	6,601	21	October ...	6,462	22
May ...	6,170	21	November ...	6,654	22
June ...	6,560	21	December ...	6,626	15

\* No school days, other than the transferred schools these months, but children are supplied with milk at the feeding centres and schools.

† Monthly totals.

*Milk Summary.*—The new Milk (Special Designations) (Scotland) Order, 1951, to which reference has already been made, came into operation on 1st June, 1951.

There are 38 registered milk producers in the City compared with 40 last year, viz., two herds producing Certified milk, 31 producing Tuberculin-Tested milk, and 5 undesignated herds producing milk which is consigned to creameries where it is pasteurised. One of these undesignated herds is an Attested herd, but a licence under the Order to use the designation "Tuberculin-Tested" in relation to the milk produced, cannot be granted unless the owner carries out the necessary requirements in order to make his premises in all respects "to the satisfaction of the Local Authority." This the owner so far has been unwilling to do and this licence has therefore been withheld. In addition to the above producers, two Attested dairy herds transferred to the Western Regional Hospital Board, produce Tuberculin-Tested milk for use in the hospitals and institutions of the Board, the average number of animals kept being 350. There are 23 pasteurising establishments, 11 wholesalers, 27 who are both wholesalers and retailer, 1,138 retailers who handle bottled milk only, 175 retailers whose certificates of registration permit the handling of bulk or bottled milk, and 12 retailers with premises beyond the City boundary who retail milk within the City. Under the terms of the proposed Order for the sale of milk in Specified Areas, the option to deal in bulk milk will be confined to a very few licence holders, in fact to those only who can satisfy the Local Authority that their facilities, equipment

and methods, are such that a satisfactory bacteriological standard can be maintained. The terms of the new Order mean that the old practice of serving bulk milk over the counter from open vessels in shops will come to an end. Of the 175 registrations permitting the sale of bulk milk, less than 30 at the end of the year availed themselves of this privilege and confined their sales to bottled milk only. The approximate daily consumption of milk, excluding school milk, in the City shows a decline of around 5,000 gallons from last year's total of 95,000 gallons. The percentage of milk consumed as pasteurised remains above 90 per cent., the balance being made up by the consumption of Certified, Tuberculin-Tested and a very small quantity of raw undesignated milk. Most of the raw undesignated milk sold in the City, is obtained from producers who hold licences to produce Tuberculin-Tested, so that the milk, although sold as ordinary market milk, is produced from herds that are controlled under the Attested Herds Scheme. This milk of course, will not be accepted for sale in bulk in terms of the proposed Order for Specified Areas. There are 1,401 registered dairies in the City, 7 less than last year, including the 38 producers. Formal and informal samples of milk taken for analysis numbered 3,658 and the average fat and solids not fat content was 3.78 and 8.81 per cent. respectively. There were 13,039 visits of inspection made to dairy premises during the year, when 25 contraventions were found and notices for repairs or alterations were issued in 36 instances. These matters were remedied in all cases. No proceedings were taken against dairymen during the year for contravention of either the dairy bye-laws or the Milk and Dairies (Scotland) Order, 1934, the terms of which were duly observed. There were 378 inspections of the 50 byres in the 38 milk producers' premises. These premises were in general found to be satisfactory except in one instance a producer, following a bad sample, was notified to remedy the unsatisfactory condition of his milk utensils and equipment which were found to show evidence of extensive accumulation of "milk stone." This was corrected and subsequent samples were found to be satisfactory. There is at present accommodation for 1,307 cows within the City and the average number kept is around 1,129.

*Exempted Premises.*—There are now only six small byres in the City where cows are kept for use of the owners only. In two cases the cows were removed permanently. The average number of animals kept in these byres is 8. In all premises where milk is produced for human consumption, inspections are made and conditions supervised.

*Public Health (Meat) Regulations (Scotland)*, 1932.—Eight renewals of registration of premises and certificates of approved storage accommodation were granted in respect of them. Thirty-three copies of certificates were granted in respect of vehicles operating from these premises. These are the same premises and the same numbers as were granted last year.

*Ice-Cream (Scotland) Regulations*, 1948.—There are 482 registered dealers of ice-cream in the City at 31st December, 1951, in respect of premises, while certificates of registration have been granted in respect of sale for 244 vehicles. There were 18 communications for contraventions of the Regulations in some respect issued as a result of 4,914 inspections of premises and vehicles. In all cases the faults were remedied. In 12 instances registration has not yet been approved. The supervision of methods of manufacture and the attention given to a regular routine cleansing after processing, continue to engage the attention of the inspectors. Some dealers take a pride in their new equipment and can be depended upon at any time to present satisfactorily cleansed plant and utensils and provide a sample giving an acceptable bacteriological result. A minority, however, require constant supervision. Two such offenders were warned by letter during the year that repetition of any unsatisfactory conditions of plant or premises would be reported for prosecution and might possibly lead to a withdrawal of the Certificates of Registration. So far this appears to have had the desired effect.

One reprehensible practice was brought to the notice of the Department in September. Two rival dealers with premises in close proximity vied with one another to obtain the custom of children, for the sale of ice lollipops. As an inducement to patronage a few lollie sticks were marked with promises of free gifts which was followed later by the freezing of threepenny pieces in a few of the lollies. The very real danger of a coin being swallowed by a child and the risk to them of introducing infection by this means was impressed on the dealers and the practice immediately stopped. So far no specific power has yet been given to Local Authorities to control this type of confection.

As from 1st March the Food Standards (Ice-Cream) Order, 1951, became operative and was received with some misgivings by the many small dealers in the City. With the obligation to enforce the terms of the Order, yet desirous of assisting the dealers to comply, it was resolved to sample ice-cream in the first instance informally, to point

out to them in what respect their composition failed, and to give them a reasonable opportunity of adjusting their recipe to the new standard before following with a statutory sample. Of seven statutory samples taken three dealers were convicted and fined for contraventions of the Order. Of the informal samples taken during the year 19 taken during January and February averaged 5.07 per cent. fat in composition and all samples passed the Phosphatase and Methylene Blue tests. 173 samples submitted during March to December inclusive are reported as follows :—

No. Examined	No. Adulterated	No. Deficient in Fat	No. Deficient in Milk Solids Not Fat	No. Deficient in Sucrose	No. Deficient in Fat and Milk Solids Not Fat	No. Deficient in Fat and Sucrose
173	71	54	9	2	5	1

#### AVERAGE ANALYSIS OF ICE-CREAM SAMPLES.

				Fat	Milk Solids Not Fat	Sucrose
Standard	...	...	...	5	7.5	10
Average	...	...	...	5.82	8.9	14.1
Highest	...	...	...	14.62	16.2	24.7

Samples are submitted in general to a bacteriological test in addition to a chemical test and although no statutory standard has been fixed for the former, samples reported containing 100,000 bacteria or more per millilitre or indicating the presence of coliform organisms per 1/100 ml. are considered to be unsatisfactory. Some observations on these results are given in the report of the City Bacteriologist. The Phosphatase and Methylene Blue testing of ice-cream has been discontinued. Some manufacturers, principally those with very small businesses, are protesting at the imposition of the quality standard, especially in regard to fat, on the ground that the use of margarine to the quantity required to provide a 5 per cent. fat in the ice-cream is unattractive to their customers. This opinion would not appear to be based on very wide-spread evidence as sales of ice-cream by the large manufacturers, who have no difficulty in exceeding the minimum of 5 per cent. fat in their product, have risen sharply over the last few years. It is true to say that the consumption of this ice-cream is greater than it was several years ago and in spite of a reduced spending power, is still considerable. A more likely cause of lack of appreciation of the ice-cream of some small manufacturers may be the reluctance of the small maker to adopt methods of heat-treatment of the mix at



lower than boiling temperatures and to provide efficient means of emulsification. Any effect on the ice-cream flavour produced by a poor quality margarine can be rectified by the supplier and the Ministry of Food. It may be that considerations other than those of flavour have prompted the protests against the standard, as it is claimed by small makers that their type of ice-cream is made to meet a demand for a soft ice-cream of a composition such as can be obtained by the use of liquid full cream milk with a cornflour or custard type basis. To meet this request the fat standard would require to be lowered to around 3 per cent. with possibly different designations with different standards for each type, e.g., "Ice-Cream"—5 per cent. fat; "Custard Ice" or "Milk Ice"—3 per cent. fat.

The following table gives results of bacteriological examinations of ice-cream.

No. Examined	No. under 100,000 with Coliforms Absent	No. under 100,000 with Coliforms Present	No. over 100,000 with Coliforms Absent	No. over 100,000 with Coliforms Present
187	164	9	10	4

The table shows that 164 samples or 87 per cent. were satisfactory compared with 273 of 330, or 82 per cent. satisfactory last year. Of the samples which failed in both count and coliform, there were only 4 of 187 or 2 per cent. this year compared with 24 of 330 or 7 per cent. last year. It is hoped further to improve on these standards in future as supervision and advice take effect.

*Shell Fish.*—The danger to health from the consumption of shell fish gathered from known and from suspected areas of pollution on foreshores of the River Clyde was given attention during the year. Seven samples of uncooked mussels, and five samples of uncooked whelks, taken from retail premises in the City, were submitted for bacteriological examination. Of these twelve samples, seven were found to provide evidence of more contamination than is usually regarded as permissible. The vendors of these molluscs were requested, in their own and the public interest, to discontinue the sale of shell fish collected from these areas, under threat of possible future action in regard to them. Six samples of cooked shell fish were also examined, but no organisms indicative of contamination were found.

*Synthetic Cream.*—It is the intention of the Minister of Food to introduce in the near future an Order imposing compositional standards for synthetic or artificial cream with revised definitions of these



products. Fat standards analogous to those imposed for dairy cream will be required. No statutory bacteriological standard for either of these creams exists at present but 12 samples of the synthetic variety were obtained from food premises in the City during the year and submitted to bacteriological examination. Taking designated milk as the yardstick two samples were regarded as unsatisfactory and investigations of methods and equipment were made with a view to improvement. The standard of hygiene of equipment and processing ought to be as high for this type of food as it is in the milk industry to-day and the presence of excessive viable bacteria, especially presumptive coliform, is no more acceptable in an artificial cream than it is in milk. Appreciation and acceptance of these principles by most manufacturers resulted in a willingness to co-operate with the Department. Inspection of methods, equipment and storage were welcomed and in several cases the dairy experience and training of members of the staff proved valuable in the detection of faults, and in finding a remedy. The popular slogan these days in regard to food manufacture would appear to be "untouched by hand" but desirable as that may be, there are circumstances in which that statement can only be regarded as giving a false sense of security. There can be less desirable contacts with food than the well-cared for and thoroughly cleansed hands of an intelligent, conscientious food handler. The complicated modern food machine can provide crevices and pockets where uncleansed, old food residues can lodge, providing breeding grounds for bacteria and subsequent contamination of following batches, unless the trained eye leads to their detection and daily removal. The increasing introduction of complicated machinery into food factories of all kinds must be followed by an enlightened thorough daily cleansing routine, if a high standard of hygiene is to be maintained. During the year four samples of the chocolate couverture used by manufacturers for the coating of ice-cream bars, etc., were submitted to bacteriological examination. All the samples had bacterial counts between 8,000 and 20,000 per gramme and no Coliform Faecal B. Coli or pathogenic organisms were found.

*Cleansing of Milk Bottles.*—During the year 235 washed bottles were submitted to bacteriological examination. Fifty of the bottles were reported as unsatisfactory on the basis of 600 organisms per pint bottle. This represents an improvement on last year's figures of 66 unsatisfactory bottles from 239 submitted. The results of bottles washed by the different methods are as follows :—

	Number of Bottles	Satis- factory	Unsatis- factory	Percentage Satis- factory
Washed by Soaker Sprayer Machine ...	24	20	4	83
Washed by Jet Type Machine ...	129	117	12	91
Washed by Rotary Brushes ...	72	38	34	53
Washed by hand ...	10	10	—	100

Bottles washed by rotary brushes continue to show too high a proportion of unsatisfactory results. These are principally obtained from the smaller dairy businesses who lack adequate facilities for sterilization at high temperature. Many of these small businesses will under the proposed Order be compelled to deal only in bottled milk.

*Fertilizers and Feeding Stuffs Act, 1926.*—Eighteen samples of feeding stuffs and four samples of fertilizers were obtained from farmers and from merchants within the City and submitted for analysis to the Agricultural Analyst. Five samples of feeding stuffs were found not to conform with the declared statement on the relative invoices. In all cases when the attention of the sellers was drawn to the discrepancies the failures were investigated and explanations subsequently accepted. It is a matter of the utmost difficulty to ensure that one or two samples drawn from a very large consignment of material of this nature is truly representative of the composition of the whole product. In all cases results were forwarded to the Department of Agriculture for Scotland.

*Prevention of Damage by Pests Act, 1949. Prevention of Damage by Pests (Infestation of Food) Regulations, 1950.*—As the result of a complaint made by a purchaser of a wrapped plain loaf from a shop in the Northern Division of the City of insects under the wrapping, an investigation was made of the stock, when an extensive infestation by small beetles was revealed. It appeared that the shopkeeper had observed a few insects in a consignment of dried peaches recently delivered and which had been placed in the back shop to await further inspection. The fruit was examined and found to be heavily infested by the fruit beetle, *Carpophilus Ligneus*. In a very short time the insects had invaded the whole premises and drastic action was necessary. A major removal of stock was made after careful inspection and treatment, and the remainder of stock and the premises were subjected to a course of treatment with D.D.T. emulsion and Pyrethrum compound. This was done by the Department's Disinfestation Unit in co-operation with the Infestation Division of the Department of Agriculture. The treatment proved successful and no serious loss of food resulted.

*Prevention of Damage by Pests (Threshing and Dismantling of Stacks) (Scotland) Regulations, 1950.*—During the year a department of Agriculture circular to Local Authorities regarding the obligations of those engaged in agriculture under the Regulations was received. This was acted upon when the text of the circular in a covering letter was issued to the 38 milk producers in the City. This was followed after 15th November by the inspection of several stack-yards during threshing when in all cases the Regulations were found to have been observed.

*Bye-laws for Regulating Street Trading.*—During the year 836 applications were made for approval of storage accommodation for food sold from vehicles in the City. This is an increase over last year of 273 and an increase over the total for 1949 of 366. During the year it was found that in a few instances the holders of permits to trade in food from vehicles were using the same vehicles to carry articles of a contaminating nature and in one case the vehicle was used to transport manure. Steps are being taken to amend the bye-laws so that the vehicle as well as the storage accommodation must be approved by the Medical Officer of Health and thereafter to fix a distinguishing mark for identification purposes while the vehicle is in use. Vendors of food for sale in this way will henceforth require to present their vehicles for approval and marking, in much the same manner as vehicles must be presented under the Ice-Cream (Scotland) Regulations, 1948. This is a progressive step towards the attainment of a higher standard of food distribution by itinerant vendors.

*The Labelling of Food Order, 1950.*—The terms of above Order were kept in the minds of the staff during visits of inspection of food premises and during sampling operations. In several cases of a minor nature the sellers of pre-packed articles of food were advised verbally to adjust statements of ingredients in the proper order of precedence in the proportions in which they were used. One article consisting of Potato Crisps was found being offered for sale without a statement but after written intimation a plea of ignorance of this new law was accepted from this small manufacturer and subsequently the omission was rectified.

A bottle of intoxicating liquor was found to be contravening Section 2 of the Order in respect of the failure to declare the derivation of the wine from grapes and to declare the strength in percentage of

proof spirit. After exchange of correspondence and submission of new labels for approval the offender was able to comply with the terms of the Order. It is believed that genuine appreciation is shown by innocent offenders of new statutory requirements when the Local Authority official proves helpful in enabling the trader to keep within the law, rather than force him to gain his knowledge of it through the experience of an appearance in a Summary Court. It is believed that the interests of the purchaser is in no way prejudiced, so long as the officer exercises a wise discretion.

### ABSTRACT OF COURT PROCEEDINGS.

#### ADULTERATED SAMPLES AND CONTRAVENTIONS DURING 1951.

#### THE FOOD AND DRUGS (ADULTERATION) ACT, 1928.

Number of complaints.	Nature of sample and alleged offence.	Number of convictions.	Amount of fines imposed.	Number dismissed or found "Not proven."	Number deserted <i>simpliciter</i> .
3	<i>Mince</i> —Contained preservatives during proscribed period ... ..	3	*£8	—	—
4	<i>Sausages</i> —Contained an excess of preservatives ... ..	4	11	—	—
1	<i>Maple Syrup</i> —Not natural Maple Syrup ... ..	1	5	—	—
1	<i>Sweet Milk</i> —Deficient in Milk Fat ... ..	1	5	—	—
<hr/> 9		<hr/> 9	<hr/> £29	<hr/> —	<hr/> —

\* 1 admonished.

### ABSTRACT OF PROCEEDINGS UNDER OTHER THAN

#### FOOD AND DRUGS (ADULTERATION) ACT, 1928.

#### THE FOOD STANDARDS (GENERAL PROVISIONS) ORDER, 1944.

#### FISH CAKES ORDER, 1950.

One case before the Sheriff carried over from 1950 relating to a sample of Fish Cakes which on analysis was found to be 71 per cent. deficient in fish was withdrawn by the Sheriff's Procurator Fiscal. The diet of proof fixed for 16th August against the supplier of the fish cakes under warranty had to be continued owing to the prolonged illness of the principal witness, the City Analyst, until with no prospect of his attendance in court the Fiscal felt compelled under the circumstances to desert the diet *simpliciter*.



Number of complaints.	Nature of sample and alleged offence.	Number of convictions.	Amount of fines imposed.	Number dismissed or found "Not proven."	Number desisted simpliciter.
1	<i>Fish Cakes</i> —71 per cent. deficient in fish ... ..	—	—	—	1

THE MEAT PRODUCTS AND CANNED MEAT (AMENDMENT) ORDER, 1950.

1	<i>Sausages</i> —Deficient in meat content ... ..	1	£10	—	—
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THE FOOD STANDARDS (ICE-CREAM) ORDER, 1951.

1	Deficient in fat ... ..	1	£5	—	—
2	Deficient in fat and milk solids not fat ... ..	2	£5	—	—

THE MILK AND DAIRIES (SCOTLAND) ACT, 1914.

1	Carrying on the business of dairyman without a Certificate of Registration ...	1	£5	—	—
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THE GLASGOW POLICE (AMENDMENT) ACT, 1890. SECTION 19.

1	Exposing for sale and selling unsound food from a vehicle ... ..	1	£2	—	—
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THE ICE-CREAM (SCOTLAND) REGULATIONS, 1948.

1	Failing to maintain cleanliness of vehicle used for the sale of ice-cream ... ..	—	—	1	—
8		6	£27	1	1
17	Grand Total ... ..	15	£56	1	1

SPECIAL SANITARY OPERATIONS.

	1945	1946	1947	1948	1949	1950	1951
(a) FOOD AND DRUGS, ETC.—							
I.— <i>Dairies</i> —							
Registered during year	103	160	250	193	185	209	165
Removed from Register	110	182	269	205	193	206	172
On Register at 31st Dec.	1,467	1,445	1,425	1,413	1,405	1,408	1,401
No. of Inspections ...	15,719	15,957	16,071	15,789	15,179	14,321	13,039
Contraventions of Orders,							
Acts or Byelaws ...	54	65	40	35	15	9	—
Prosecutions for same	4	5	—	—	—	—	—
Repairs or Improvements effected ...	91	75	91	36	10	7	—



SPECIAL SANITARY OPERATIONS—*Continued.*

	1945	1946	1947	1948	1949	1950	1951
<b>II.—Dealers in Ice-Cream—</b>							
Registered during year—							
Premises ... }	94	52	42	New Regu- lations now opera- tive	263	215	60
Vehicles ... }					187	81	40
Removed from Register—							
Premises ... }	118	41	36		—	31	25
Vehicles ... }					—	34	30
On Register at 31st Dec.—							
Premises ... }	427	438	444		263	447	482
Vehicles ... }					187	234	244
No. of Inspections ...	3,103	3,206	3,873	3,902	6,610	5,492	4,914
Contravention of Acts, Orders or Byelaws	5	11	4	3	5	19	—
Prosecutions for same	1	—	—	—	—	4	—
Repairs or Improve- ments effected ...	18	14	16	27	9	4	—
<b>III.—Byres for Milch Cows—</b>							
No. of Dairy Byres as at 31st December ...	64	58	59	57	55	52	50
No. of Cows licensed for	1,665	1,467	1,499	1,458	1,383	1,328	1,307
Average Number kept	1,571	1,239	1,230	1,281	1,165	1,120	1,129
No. of Inspections ...	425	477	423	428	404	379	378
<b>IV.—Unwholesome Food—</b>							
No. of Inspections ...	10,026	9,905	10,328	10,493	9,517	9,345	9,598
No. of Lots dealt with	2,308	2,339	3,180	2,380	1,267	1,259	1,747
	tons	tons	tons	tons	tons	tons	tons
Nature of Food de- stroyed at Inspector's instance with Owner's consent.	221 cwts. 6 lbs.	145 cwts. 2 lbs.	139 cwts. 16 lbs.	91 cwts. 4 lbs.	110 cwts. 6 lbs.	171 cwts. 10 lbs.	125 cwts. 13 lbs.
Assorted foodstuffs ...	—	—	30	71	93	105½	82½
<b>V.—Food and Drugs (Adul- teration) Act—</b>							
Informal samples analysed ...	2,183	2,877	3,372	3,659	4,374	4,406	3,950
Statutory samples analysed ...	1,241	1,245	1,314	1,291	1,326	1,328	1,329
Statutory samples found non-genuine	45	35	32	34	27	37	20
Proceedings instituted	39	27	24	24	16	22	9
No. of Convictions ...	33	22	17	20	15	20	9
Amount of fines im- posed ...	£124	£80	£63	£70	£50	£50	£29
No. dismissed or found "Not Proven" ...	—	1	3	1	—	1	—
No. deserted simpliciter	6	2	4	3	1	—	—
Warranty Defence sus- tained ...	—	—	—	—	—	—	—
No. pending ...	—	—	—	—	—	—	—
No. Withdrawn ...	—	—	—	—	—	—	—
No. Dismissed (first offenders) ...	—	2	—	—	—	1	—

## SECTION XI.

### AIR PURIFICATION.

During the year much useful work was accomplished in the continued effort to raise the standard of atmospheric cleanliness within the city. This is not a field in which annual improvement can be spectacular, for experience has shown that even a temporary cessation of the work of supervision and control results in retrogression. During the war years this was very evident, especially in those areas where industry was heavily concentrated and where local nuisances were most prevalent. Considering the great improvements that have taken place in the fields of fuel technology and plant application during the past two decades, it might have been anticipated that the problem of air purification and smoke abatement would have been well on the way to ultimate solution. However, this is not so, largely because the manipulation and management of most of the plant and equipment immediately concerned with fuel combustion depends on the human element.

Many adverse factors prevent simple solutions of the problems of smoke abatement. The Department possesses statutory powers to enforce the reduction of smoke emission, but unfortunately these powers do not extend to the domestic chimney, which contributes such a considerable proportion of the smoke nuisance. There is still some public apathy with regard to smoke in the atmosphere, an apathy which propaganda and education have so far failed to overcome.

#### SUMMARY OF OBSERVATION AND INSPECTION WORK CARRIED OUT DURING THE YEAR.

Number of observations of chimneys ... ..	22,009
Number of inspections of steam boiler and other furnaces ...	334
Number of intimations of excess smoke given ... ..	281
Number of initial warning notices served ... ..	43

The above figures include work done in the dock and harbour areas involving shipping. Problems connected with shipping differ materially from those encountered in the operation of stationary plants on shore.

*Observations on Plant Improvements noted during 1951.*—The primary function of the inspectors is to observe and record contraventions of the local smoke regulations and to advise on practicable remedial measures that may be adopted to suit each individual case so as to prevent a recurrence of the trouble. While doing so the staff also note such improvements to plant as will conduce to further smoke abatement.

The following table indicates the nature and numbers of such improvements coming within the knowledge of the Department during the period :—

New steam boilers installed to give increased power	...	10
Mechanical stokers fitted to steam and heating boilers and other furnaces	... ..	15
New chimneys erected and existing chimneys heightened		16
Boilers or process furnaces converted to gas or oil fuel	...	4
New mechanical grit and dust arrestors fitted	... ..	8
Other improvements not included under the above headings		13

These figures refer only to substantial additions and not to minor alterations or repair work such as is involved in flue and setting maintenance, etc. During the past few years a considerable amount of new plant has been installed. Considerable leeway has been made up, but the tempo seems to be slowing down probably owing to the shortage of materials due to rearmament requirements. In the provision of new and improved combustion equipment much remains to be done. The principal major improvements which took place during the year may be listed as follows :—

- (a) A large local authority institution situated to the north of the city has installed a battery of three large " Lancashire " type steam boilers to give increased capacity, replacing a battery of smaller units which had been in use for many years.
- (b) A bakery firm in the south-central area of the city has installed a completely new boiler plant including boilerhouse. This modern plant comprises a large " Economic " type boiler fitted with chain grate stokers, mechanical draught and Vortex grit arrestors, and all necessary auxiliaries and instruments.
- (c) The Corporation Transport Department at their car maintenance works in the south-side have installed an additional " Economic " type boiler fitted with mechanical stokers, etc., to reduce the load on a similar plant which was working beyond rated capacity.

- (d) A firm of dyers and cleaners in the Maryhill district have installed a large "Economic" type boiler fitted with mechanical stoker, replacing "Lancashire" boilers. Use has been made of an existing tall brick chimney.
- (e) A firm of bottlers in the central area have installed a large vertical boiler fitted with oil fuel firing and a tall new steel chimney. This replaces a smaller unit which had been a recurring cause of nuisance in the area.
- (f) A large departmental store in the north-central district has installed a larger heating boiler and controlled oil fuel firing, replacing an older plant which had been the subject of complaint.
- (g) A large infirmary has fitted four existing "Lancashire" type boilers with a new stoker plant, replacing an older type which had been the cause of frequent heavy smoke emission. Conditions are now excellent.
- (h) A well-known electrical firm in the east-end has installed cyclone grit arrestors and a water spray system to reduce and eliminate grit and dust emission from foundry cupolas. The works had been the cause of much complaint by adjacent householders. Conditions are now good.

*Complaints investigated.*—The investigation of complaints of smoke, grit, dust, soot and fumes from industrial chimneys takes up much time. The development of new housing areas contiguous to factories and industrial plants has caused an increase year by year in the aggregate of complaints. Many such complainers write that they "are not going to have their new houses and furniture polluted by such dirty chimneys" and "the chimneys must be removed at once." Wherever possible personal calls are made on the complainers and on the executives of the plants involved.

Changes in stoking methods and in types of fuel used, the heightening of chimneys or their removal to a more remote site, are some of the measures adopted to resolve nuisances which arise. On the whole, the larger undertakings are more ready to effect improvements than the smaller. In some cases, fortunately a small minority, only legal enforcement will bring the plant users to a realisation of their responsibilities.

*Prosecutions taken during Year.*—Moral suasion and technical argument are the main weapons of the staff in the resolving of smoke nuisances. Amicable settlement is always preferable to statutory enforcement. This being the Department's policy, only a small number of prosecutions were taken in proportion to the total recurring infringements noted.

During the year a total of 19 cases were entered in the Central Police Court, and were heard before the Stipendiary Magistrate as they were all of a technical nature. All were found guilty. Three were admonished, and of the remaining 16 cases, 13 were first offenders and were each fined £2, three were second offenders and were also fined £2. There is no doubt that the publicity of the court action is a real deterrent.

*Shipping in the Harbour.*—Systematic observation was maintained in the dock and river areas during the year. Consequent on complaints being received—almost all by telephone and several by the Police—special early and late observation work was done and initial warning notices were sent to a number of shipping companies. When excessive smoke occurs with shipping it is usually very dense indeed and causes immediate pollution of the harbour and adjacent areas. When ships are preparing for sea after a stay in port there is frequently heavy smoke emission because of the rapid stoking needed to raise steam. There is no doubt that most ships staffs are on the alert, but lapses do occur. Ship stokehold practice varies considerably from that on shore, and the Smoke Inspectors being qualified marine engineers are quite conversant with such conditions and know what is current marine practice and what is practicable. A number of warning notices were issued to smaller craft, such as ferry-boats, fuel boats and tugs. During the year two prosecutions were taken against recurring offenders, one concerned a large ocean-going vessel and the other a cross-river ferry-boat.

*Dust and Grit Emission.*—During 1951 pollution from dust and grit was again in evidence. It was caused principally by straight steam-raising process plants involving combustion, incinerating furnaces and the burning of process debris in the open. In the last case, prohibition of the practice is the only remedy. Complete abatement in some cases is impossible, and in most instances improvement involves considerable expenditure and mechanical arrestors.



The installation of water sprays, baffling systems and expansion chambers, while assisting in a reduction of the emissions, do not in many cases bring about sufficient improvement to prevent nuisance.

As already indicated, a number of efficient mechanical dust-arrestors were fitted during the year, the majority as the result of discussion with the plant executives concerned in alleged complaints.

*Fume Nuisances.*—Complaints from fumes have not been so numerous this year as in recent years. Certain chemical firms using heat treatment which previously caused complaints have now improved their methods of operation and modernised their plant. The conditions of one firm, however, necessitated a visit by the Chief Inspector (under the Alkali, etc., Acts). The firm, following his advice, has modified its methods and definite improvement is anticipated.

Fume and noxious vapour complaints, arising from more simple and direct burning operations, were investigated and in almost every case improvement was obtained. The operations which usually cause fumes include rubber burning in the open, stripping of insulated cables, resin distillation, the use of coke oven plant, metal smelting, and the making of chemical fertilisers.

*Central Heating Plants.*—Comment has been made in recent annual reports with regard to the nuisances caused by such plants, particularly in the central and business areas of the city. As such a large number are in operation, especially during the winter it is not surprising that trouble recurs annually. The choice of suitable fuels for hand stoked boilers is limited, and only anthracitic varieties and coke can be considered as satisfactory. Even with these, care and skill must be exercised. Fortunately many boilers are fitted with “automatic” stokers or are arranged for oil fuel burning, but even with these heavy smoke results from maladjustment of the plant. Many warnings were issued during the year in respect of these plants and advice given to both operatives and management. One persistent offender was proceeded against. The stoking of this class of boiler by “casual” attendants is a frequent cause of trouble, and is a practice that leads to much waste of fuel.

*Mobile Pitch Melters.*—Coke is now in general use for mobile pitch melters, and as a result the smoke emission is minimal. These units are used in street, footpath and roof repair operations, and complaints

are received only in those cases where coal is burned or where they are temporarily located in a very restricted area, such as a cul-de-sac or behind business premises. In a number of cases their operation adjacent to certain "sensitive" processes, mostly of a chemical nature, gave rise to complaint and the melters had to be removed to a more remote stance. A number of firms using these were notified during the year of nuisance caused. Much of the melting is now done in central premises and the pitch transported to the site of use.

*Soot and Atmospheric Precipitation Gauges.*—There are five precipitation gauges of standard design situated at chosen sites in the northern, southern, eastern, western and central districts of the city. The central gauge is located at Glasgow Cross, adjacent to the laboratory of the Corporation Chemist and Analyst. These recordings have been continuous since 1914 and the sites of the gauges in the respective districts have been altered from time to time. In addition to the town gauges there are two country stations, one sited at Mugdock Estate, approximately 10 miles north, and the other at Brenachoile on the north-east shore of Loch Katrine, approximately 40 miles to the north by west of the city. These outside gauges are used as check stations to obtain estimations of the precipitation in the cleaner country surroundings. As a result of the monthly analyses made by the Corporation Chemist, the following summarises the information obtained during the past two years :—

DEPOSIT OF EACH ELEMENT OF ATMOSPHERIC POLLUTION FOR 1950-51  
(CITY GAUGES ONLY).

						Tons per square mile.	
						1951.	1950.
Insoluble matter—							
Tar	...	...	...	...	...	3.35	3.05
Carbonaceous other than tar	...	...	...	...	...	40.05	55.77
Ash	...	...	...	...	...	113.81	104.50
Total insoluble matter	...	...	...	...	...	159.20	161.33
Total soluble matter	...	...	...	...	...	82.09	82.92
Total solids	...	...	...	...	...	243.29	244.27
Rainfall in millimetres	...	...	...	...	...	903.00	957.00

Appended to the report for this section is a table giving the details of the average monthly deposit of each element of atmospheric pollution for the past year and a comparison with the previous six years.

## AVERAGE DEPOSIT OF EACH ELEMENT OF ATMOSPHERIC POLLUTION FOR EACH MONTH OF 1951.

## ENGLISH TONS PER SQUARE MILE

Mean of 5 Stations	Month	INSOLUBLE MATTER						Included in Soluble		TOTAL SOLIDS									
		Rainfall in millimetres	Tar	Carbonaceous less Tar	Ash	Total Insoluble Matter	Total Soluble Matter	Total Solids, 1951.	Sulphate as SO <sub>2</sub>	Chlorine as Cl.	1950.	1949.	1948.	1947.	1946.	1945.			
...	January ...	100	.33	4.10	8.99	17.43	9.78	27.20	2.68	1.65	16.87	24.57	27.98	20.15	25.81	22.35			
"	February	59	.46	3.81	11.25	15.54	7.64	23.18	1.94	1.61	24.10	19.76	22.24	26.48	18.55	34.28			
"	March ...	56	.38	5.41	12.38	18.17	7.07	25.24	3.09	.73	19.46	20.58	26.99	22.58	22.89	23.16			
"	April ...	50	.42	3.03	9.22	12.66	7.69	20.35	2.42	2.05	17.05	19.98	20.99	28.47	14.88	18.88			
"	May ...	46	.16	2.48	5.33	7.96	3.69	11.65	1.52	.38	11.54	14.14	15.99	24.05	12.30	23.28			
"	June ...	53	.28	3.76	14.94	18.98	3.83	22.81	1.46	.41	14.40	12.95	17.58	18.63	17.72	19.94			
"	July ...	83	.20	2.09	7.25	9.53	4.45	13.99	1.86	.38	16.41	12.45	10.78	18.85	14.51	14.72			
"	August	106	.21	1.76	5.92	7.89	4.95	12.84	1.85	.58	16.68	17.20	17.14	No	15.67	14.59			
														Rainfall					
"	September	71	.21	2.97	8.93	10.11	4.81	16.93	1.76	.59	21.48	10.90	16.48	28.47	22.70	18.29			
"	October ...	20	.22	2.70	8.99	11.91	4.17	16.08	1.55	.53	17.51	21.79	18.11	15.04	15.84	21.33			
"	November	134	.20	4.48	9.46	14.14	9.36	23.49	6.78	1.67	46.35	22.05	21.59	23.95	20.40	15.85			
"	December	125	.28	3.46	11.15	14.88	14.65	29.53	3.06	4.80	22.42	46.88	24.37	24.17	27.82	22.57			
Yearly Deposit in tons per square mile		903	3.35	40.05	113.81	159.20	82.09	243.29	29.97	15.38	244.27	243.25	240.24	250.84	220.09	249.24			
Monthly mean of all Gauges...	...	75	.28	3.34	9.48	13.26	6.84	20.27	2.49	1.28	20.35	20.27	20.02	20.92	19.09	20.77			

During 1951 the average weight of solid deposit in tons per square mile was 0.269 per millimetre of rainfall, while the corresponding figure for 1950 was 0.255, an increase of 0.014. The total precipitation for 1951 amounted to 243.29 tons per square mile, while the figure for 1950 was 244.27, showing a decrease of 0.98 tons. Thus there was an increase per millimetre of rainfall but a decrease in the total per square mile. The amount and incidence of the rainfall are determining factors and account for the apparent anomaly in the results. The showery incidence of rainfall has a greater washing effect on the atmosphere than heavy downpour. The average for the six-yearly period 1945-1950 was 242.82 tons indicating an increase of 1.45 tons for the 1951 period. The average monthly rainfall over the winter period (October to March) was 82 mms., and the average deposit of total solids during the same period was 24.12 tons per square mile. The corresponding figure for the summer period (April-September) were 68 mms. and 16.43 tons. The average total rainfall for 1951, as indicated by the gauges, was 903 mms. as against the corresponding figure of 957 mms. for 1950.

*Course in Smoke Abatement, Fuel Economy and Boiler-house Practice.*—These courses were begun in 1910, and except for the first war years (1914-18) have continued ever since, being now regarded as an essential part of the campaign for a cleaner atmosphere. The 36th annual session of the above course was carried on from October 2, 1951, until January 16, 1952.

A total of 108 students enrolled for the Course, 62 as first year and 46 as advanced. The lectures were given twice weekly, on Tuesday and Wednesday evenings, a total of 28 being given over the session. In addition, two further refresher lectures of  $2\frac{1}{2}$  hours each were given to those students going forward to the City and Guilds of London Institute Examinations in Boiler-house Practice. The average attendances over the session were very good, being 75 per cent. ordinary and 79 per cent. advanced.

The written class examinations were held during January, 1952, a total of 57 men coming forward. It was gratifying to note the sustained interest of the course personnel and to be able to record that 28 men in the ordinary class and 22 men in the advanced groups gained Merit certificates.

The certificates and book prizes allocated to each class by the National Smoke Abatement Society are presented annually at a meeting convened by that body each May and addressed by members of the Society Executive and the Corporation of Glasgow.

THOMAS M. ASHFORD,  
*Senior Smoke Inspector.*

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## THE MENACE OF POLLUTED AIR.

*Paper read by the Medical Officer of Health at the Annual Conference of the Scottish Division of the National Smoke Abatement Society at Perth, in May, 1952.*

## INTRODUCTION.

The twentieth century has seen a remarkable improvement in public health standards, particularly evident in improved sanitation and in the control of infectious disease. Even tuberculosis, referred to so dramatically by Bunyan as "The Captain of the men of death," is gradually being reduced to the ranks by a combination of factors, including B.C.G. vaccination and the new antibiotics. Food hygiene, although improving, still leaves much to be desired. Smoke pollution of our large cities and urban areas has certainly lessened, but still remains a problem of civilised life. Today we see fewer bad fogs than did our fathers, and it is encouraging when studying the problem of air pollution to note their relative scarcity in recent years. We can congratulate ourselves that the "London particular" so vividly described by Charles Dickens no longer occurs, but the Glasgow fog of 1909, the London fog of 1928, and the Meuse fog of 1930, though now past history, are constantly referred to. Such fogs as these brought forcibly to the public mind the discomfort, inconvenience and danger to health resulting from dirt and smoke, and emphasised the arguments of our predecessors in the National Smoke Abatement Society.

## EFFECT OF REDUCED SUNLIGHT.

Further progress in smoke abatement is retarded by the amount of public apathy towards the many impurities found in the air. The man in the street accepts without question the atmospheric condition of the town into which he is born. What should he really expect of the air he breathes? Firstly, he should expect the sun's rays to be able to penetrate it. Everyone knows the definite consciousness of well-being experienced on a sunny day, and science has precisely proved the ways in which the sun is valuable and, indeed, which components of the sun's rays are responsible. Again, science can exactly measure the intensity of the sun's rays and prove, alas, that there is a marked variation in the strength between town and country. We can ourselves prove it in a simple manner with a camera. When our adaptable eyes assure us falsely that this industrial scene is as brightly lit as that rural one, the finished photograph will prove us wrong (see Appendix I).

This loss of light affects all living things. The diminished sunlight leads to lowered vitality and lowered resistance to infection. The bactericidal effect of sunlight is generally accepted, and any pronounced reduction of amount or intensity of sunlight will thus affect health. Ultra-violet rays are most powerful in this work and are readily lost in passing through a dusty atmosphere. These ultra-violet rays also activate the ergosterol of the skin to make vitamin D. The work of vitamin D in using the calcium and phosphorus of our food for building healthy bones and teeth is in itself enough to make us demand the fullest value from every hour of sunshine. Deficiency of vitamin D soon causes rickets and carious teeth.

Rickets can be cited as an example of a disease closely associated with lack of sunshine. In the early days of this century it was clearly shown that the decrease in sunshine with latitude accounted for the greater incidence of rickets in Northern England and Scotland compared with the South and that smoke, by reducing the available sunshine in cities, was an additional adverse factor. In Glasgow the effect of rickets was particularly severe. We find, for example, that in 1910 over 9 per cent. of the school population was affected and that this disease alone accounted for over half the entrants to the Physical Defective Schools. Rickets caused a high mortality among infants and children, as it helped to increase the number of deaths from marasmus and respiratory disease. Of the bony deformities persisting into adult life the most serious was the rachitic pelvis which lead to high maternal and infant mortality. Looking back on those days we now realise that the investigations stimulated by this distressing and crippling disease focussed public and medical attention on the associated social and dietetic factors and ultimately produced much sound health legislation<sup>1</sup>. Much of the success of the Maternity and Child Welfare Service and the School Medical Service has been due to the stimulation of thought resulting from the public appreciation of the disastrous results of rickets. As regards the diet, it was found that cod liver oil, with its high concentration of Vitimin D, was of great value. The addition of synthetic Vitimin D to National Dried milk in 1946 caused a striking fall in the incidence of rickets. In 1951 only 0.2 per cent. of the school entrants in Glasgow were rachitic and only one child so disabled as to need admission to a special school.

## THE SOLID POLLUTANTS OF THE AIR.

The power of the sun's rays to penetrate the air is directly affected by dust particles. In our earliest geography lessons we were taught that a certain amount of the sun's energy was lost as the rays passed through the earth's atmosphere, being absorbed or reflected back by dust particles. The most important reason for the difference in the potency of our midsummer and midwinter sunshine is that in summer the rays pass through this blanket of air from a higher angle and have a shorter journey through heat-robbing dust particles than in winter when the sun is low in the sky and its rays pass more obliquely through the atmosphere. Air always contains a variable amount of suspended solids in fine particles. We could not possibly free the air of all dust. It is useful in forming nuclei for the condensation of water vapour as clouds and precipitation of rain. However, too much dry dust, whether from natural sources or from industry, irritates the mucous membranes and causes minor inflammation of the eyes. Moisture in the air helps to precipitate the dust. It is the dry, dusty air that is the nuisance.

The extreme form of mechanical irritation is experienced in desert dust storms, and well might the traveller long for the camel's thick hide and heavily lashed protective eyelids. Most travellers in desert regions can describe graphically the irritation of the eyes and respiratory tract and skin that they have suffered during a dust storm, but unless they are buried by sand they seem to recover without subsequent effects. However, the dust storms in the Middle West of the U.S.A. in 1935 were reported to have caused a high increase in morbidity and mortality from diseases of the respiratory tract<sup>2</sup>.

On dry days street dust causes minor irritations, and Cleansing Departments usually help to mitigate the discomfort by spraying the streets with water. Each particle of this street dust carries its complement of bacteria, many of them pathogenic, but the defensive mechanism of our bodies can usually deal with the invaders. Workers in the Cleansing Department are constantly exposed to this hazard. Dr. Bell<sup>3</sup>, who has done some inspiring work on this superficially unattractive subject, reports that the dust has an aggravating effect on respiratory tract infections and causes certain forms of dermatitis and inflammatory conditions of the eyes and ears. It has been found that a higher proportion of employees of Cleansing Departments (five per cent.) suffer from running ears and conjunctivitis than exists in the ordinary population. The solution lies in safeguarding these

men by mechanical devices. The dust seal on modern Cleansing Department vehicles and the travelling floor are great improvements. The suction dustbin emptier is not yet in general use, but the manual sweeping of roads in many towns has been replaced by mechanical sweepers with water sprays minimising the dust clouds. We can therefore feel that the problem of dealing with street dust and household rubbish is under control and can even overlook the fact that it costs somewhat more than the six shillings a week that used to suffice Edinburgh to hire a horse and cart to clear refuse from the streets in 1619.

The constant inhalation of dust sets up within the lung tissue a low grade inflammatory reaction leading to fibrosis, which ultimately obliterates many of the normal lymph channels. This may actually be an advantage in certain cases of tuberculosis, as it slows down or prevents the spread of the disease and encourages the encapsulation of the bacilli. In other conditions such as pneumonia, it is a disadvantage as it prevents early resolution of the infected lung substance. It is fortunate that irritation of the lungs by dust or gases does not in general appear to be conducive to lung cancer.

Some varieties of dust are particularly dangerous. Dusts of certain industries can cause definite illness attributable to them alone. For example, silicosis is a miner's lung disease caused by the inhalation of particles of silica. This occupational hazard has been much studied, though not much advance has been made in its treatment. Prevention is the only method of dealing with this problem, and with modern engineering techniques there is no reason why silica exposures cannot be reduced to safe concentrations and silicosis eliminated. Free silica dust is the only mineral dust which appears to lower the resistance of men and animals to tuberculosis, but it does not predispose to lung cancer. There are also other varieties of pneumoconiosis due to working with asbestos (asbestosis), coal dust (anthracosis), and iron oxide (siderosis), but these can hardly be considered hazards run by the general populace breathing the free air. There are also dusts of plant origin, cotton, grain and wood dust, for example, which produce irritant effects, and dusts of metallic origin affect workers to various degrees. But here again realisation of the danger leads to research, and means of controlling the situation are devised.

What other solids in the air can one consider of special importance? Soot is without doubt the most obvious (see Appendix II). Some of



the Society's dramatic posters illustrating quantities can be called to mind, for example, that one of Trafalgar Square with a mountain of soot swept neatly around Nelson's statue. Soot is a menace from many points of view. Aesthetically it is a tragedy. It subdues to a dismal grey whole cities. It begrimes the homes, enslaving the housewife in a constant battle to maintain a satisfactory standard of cleanliness or dispiriting her till she hopelessly abandons the struggle and seeks brightness in technicolour films. The money expended by municipalities firms and individuals in attempting to remove the obvious dirt due to the concentration of soot would go far to solve the problem if applied at the source.

According to Whytlaw-Gray<sup>4</sup> the finer particles are the most dangerous, as they are easily breathed in and settle in the lungs themselves. The coarser particles are more readily rejected by the ciliated lining of the respiratory tract. It is common knowledge that the lungs of a city dweller speedily become blackened, and that even a prolonged subsequent sojourn in the country fails to clear the soot from the depths of the lungs. The capacity of the air passages leading to the alveoli is such that ordinary breathing does not draw air into them. Interchange of inspired air and that already in the lungs is mainly by diffusion. But with forced inspiration, as in coughing or sneezing, such as is caused by dust-laden or foggy air, fine particles can reach deep into the lungs. Suspended matter settles on the damp lining of the alveoli and remains there. This deposit of carbon cannot easily be proved to have an immediate irritant effect on the lung tissue; nor it is easy to attribute to soot alone the irritant effect on the mucous membrane that results in much coughing and sneezing and nose-blowing, though soot is so clearly visible in the secretions. Attempts at proving that the common cold is more frequent among town than country dwellers only show in the end that the cold virus has a better opportunity in crowded city conditions. So, while advising caution to those enthusiasts among us who seek to find in this one factor the root of all respiratory evils, let us see how much damage we can honestly attribute to soot. A small amount of deposit in the lungs can do no immediate harm or each of us would be affected now. It is the long term accumulation and the conditions of heavy pollution that can be considered as a contributory factor to certain diseases. First of all, the mucous lining of the respiratory tract is irritated and secretes mucus to remove the soot, dust, ash or other irritant. Catarrh, sinusitis and even bronchitis may follow. Smoke products do not



cause pneumonia nor make it more dangerous in the acute stage, but they do delay recovery, for the normal drainage of the purulent discharge which remains in the cavities of the lungs is partly by the lymph spaces, and if these are choked with carbon particles this essential drainage process is impeded. The relationship of soot particles to lung cancer is another debatable problem. Some authorities believe soot to be carcinogenic. Lung cancer has shown a steady, alarming increase in recent years, yet the sootfall has not shown a corresponding increase.

Other authorities claim that soot is bactericidal or inert. Even if soot is exonerated from blame, modern research has shown that the air contains some carcinogenic substances, both solid and gaseous, and we should consider cancer at this juncture as a disease which may have some relationship to atmospheric pollution. Cancer is a disease which strikes terror into the hearts of its victims, and in the mortality tables of the Registrar-General it has been gaining ground in frequency as a cause of death. Today it occupies second place. The number of deaths attributed to cancer of the lungs has increased in the ratio of 1 = 10·2 in men and 1 = 3·6 in women in Scotland during the period 1921-45. Generally speaking, cancer is a disease of adults, having several forms and affecting almost any organ of the body. Part of the reason for its greater frequency is, of course, the fact that the population is ageing, that is, there is a higher proportion of the nation in the older age groups than ever before.

SCOTLAND—  
MALIGNANT DISEASE OF THE RESPIRATORY ORGANS.  
DEATH RATE PER 100,000.

			1921		1949	
			Males.	Females.	Males.	Females.
All ages	...	...	4	3	41	11
35—	...	...	3	3	20	5
45—	...	...	11	8	90	14
55—	...	...	13	12	173	29
65—	...	...	37	10	152	42
75—	...	...	14	19	112	52
85—	...	...	—	—	15	51

Part of the recorded increase is due to better diagnostic methods. It is interesting to note that while lung cancer has increased mediastinal cancer has decreased, largely because improved radiological and bronchoscopic technique has transferred many cases from the

mediastinal group into the lung cancer group. In addition, many cases are now properly diagnosed as lung cancer which in the past would have been classified as pneumonia. Lung cancer frequently causes a collapse of a lobe with associated low grade bacterial infection. In the absence of radiological examination or bronchoscopy, even indeed in the early days of X-ray work, such conditions were practically always recorded on the death certificate as pneumonia, post-mortem examinations being few.

It was early discovered that persistent irritation caused certain skin cancers, for example, chimney sweeps' cancer, the epitheliomas of chrome workers, and cancer of the lip long associated with the smoking of clay pipes. These findings led observers to wonder if irritant substances in the air we breathe might, if inhaled long enough, damage the lungs and so set up cancerous conditions. A host of substances have been suspect, including the tar and arsenic in the atmosphere, the smoke from tobacco or cigarette paper, benzpyrene and radioactive particles.

If such pollutants are responsible then there ought to be a higher incidence among town dwellers than in the country. Have we any evidence that this is so? Stocks<sup>5</sup> has shown that there exists "a steep downward gradient of rates from London, through large and small towns to rural districts," and that wide variations occur between rates for the different large towns. These latter rates are shown to be significantly correlated with the mean hours of sunshine in the respective localities, the correlation being greater for lung cancer than for bronchitis or respiratory tuberculosis. The differences in hours of annual sunshine are due mainly to smokiness of the atmosphere, and Stocks concludes that "either the smokiness of the atmosphere is an important factor in itself in producing cancer of the lungs, or sunshine is an important factor in preventing its incidence."

In all comparisons of the incidence of cancer of the lung in town and country one must consider at least three possible factors, namely, atmospheric pollution, facilities for diagnosis and treatment, and smoking habits.

R. E. Waller<sup>6</sup> has carried out research on the possible effect of smoke upon the incidence of diseases of the lung. In commenting on the views of Stocks about statistical data he says, "Clearly coal smoke ought to be connected with the differences between town and country but could hardly account for the rapid increase (in lung cancer) during

the past twenty-five years." In this connection tobacco smoke and fumes from motor cars must be considered, as smoking and motoring have both increased considerably during this period.

The possible effects of tobacco smoking are being investigated by a number of workers both in this country and in the U.S.A. Wynder and Graham<sup>7</sup> have published detailed results from an investigation of 605 men with bronchogenic carcinoma. These show that a very high proportion (96·5 per cent.) of the cases were among smokers classed as "moderate" or "chain" smokers, being considerably higher than the proportion of such smokers in the general hospital population not suffering from cancer of the lung (73·7 per cent.). Further, the proportion of cigarette smokers amongst these cases was higher than that in the same general population and most had been smoking twenty years or more. Richard Doll and Bradford Hill<sup>8</sup> carried out in London a similar investigation of 649 men and 60 women suffering from bronchogenic carcinoma. Their findings were very similar to the American workers, namely, that cigarette smokers were more liable to develop the disease than pipe smokers. They showed also larger percentages of heavy smokers among cancer victims than non-cancer cases (25 per cent. as contrasted with 13·5 per cent.). In fact, the risk seemed to vary in approximately simple proportion with the amount smoked. (In Iceland where tobacco smoking has only recently been introduced, lung cancer is very rare.) These observers, in contrast to the American workers, considered inhaling did not add to the danger. They appreciated this anomalous result and commented that in the present state of our knowledge the findings should be accepted and judgment postponed, until the size of the smoke particles which carried the carcinogen had been determined. Even more recent American reports<sup>9</sup> tend to confirm these findings and emphasise the difficulty of early diagnosis when the first symptoms are confused with a cigarette cough. Bronchoscopic examination may also fail to detect early lesions in the upper lobe bronchi as they are located "around the corner". This is important as over half the cases occur in this situation. The results of treatment of bronchogenic carcinoma are not satisfactory. In a recent series of 948 patients only 59 per cent. were operable, and of these only 6 per cent. were alive at the end of five years. The American workers advocate a routine chest X-ray in men over 40 every six months, particularly in heavy smokers, in an endeavour to detect any disease in its earliest stage. Obviously a simpler method would be to advocate less smoking and X-ray only if a cough developed

and tended to persist. Arsenic is the only known carcinogen in tobacco smoke, and different brands vary greatly in their irritant action<sup>10</sup>. It is interesting to note that there has not been an increase in cancer of the upper respiratory tract, though logically this would seem even more open to the irritant effect of tobacco than the bronchial tree. This is well illustrated by reference to the mortality tables from cancer of the larynx and cancer of the lung respectively. Whereas between 1929 and 1949 cancer of the larynx in men in England and Wales has actually declined, cancer of the lung has markedly increased, as shown in the following table :—

#### ENGLAND AND WALES.

##### CHANGES IN MORTALITY FROM CANCER OF THE LUNG AND OF THE LARYNX.

			Cancer of the Larynx.		Cancer of the Lung.	
			Men.	Women.	Men.	Women.
1921	...	...	641	138	361	186
1929	...	...	831	230	849	359
1949	...	...	813	284	9,327	1,945

Examination of samples of town smoke has shown that other substances known to have carcinogenic properties are always present in trace amounts. Benzpyrene is one<sup>11</sup>. Pathologists, both in Britain and in the U.S.A., have found that 3 : 4 benzpyrene shares with methylcholanthene and 1 : 2 : 5 : 6 dibenzanthracene the distinction of being among the most active of the carcinogenic substances when tested histologically<sup>12 13</sup>. Subcutaneous injections into rats and mice caused cancerous growths to occur<sup>14</sup>. These findings are of great scientific value, but it remains to be proved that the small quantities of benzpyrene found in the air are dangerous. However, considering the effects which small quantities of vitamins or endocrine substances have on the living organism one might suspect that small quantities of carcinogenic substances could do a proportionate amount of damage if inhaled over a long period of time. R. E. Waller<sup>6</sup> has pointed out that 3 : 4 benzpyrene is present in the tarry matter in smoke produced by the inefficient combustion of coal, so it is not surprising that the concentration rises during the winter in towns when there are so many more domestic fires. A properly worked industrial chimney does not emit benzpyrene. Only small quantities are emitted from the exhaust fumes of internal combustion engines, but we must remember that if the particles are smaller they are more likely to be lethal. Benzpyrene



attached to coarse particles of soot will be dealt with by the ciliated lining of the respiratory tract but the very fine particles may penetrate to the alveoli of the lungs<sup>15</sup>. The amount of carbon in the lungs at autopsy represents the total received in the lifetime, and from the study of atmospheric pollution the approximate amount of benzpyrene that would accompany it can be estimated. Unfortunately, we cannot compare the quantities of benzpyrene in the air in the past and the present, as only recently has attention been focussed on this subject.

Another carcinogenic substance found in the air is arsenic, which is present in some coals and is thus emitted with the smoke. Arsenic dust and fumes are extensively used as insecticides, and some observers consider that the arsenic in tobacco may ultimately have been derived from spraying the plant with these preparations. Smelting works also produce arsenic vapours, and it has been found that these may be carried long distances by the wind. Tar also is claimed to be a carcinogen. In his Annual Report for Salford, 1931, Dr. Osborne showed a significant relationship between the amount of tar deposited and cancer of the lungs. Though the relationship between radio-active substances and cancer has not been proved directly, it is interesting to note that there is an exceptionally high rate of lung cancer among the miners at Schneeberg and Joachimstal, Czechoslovakia. When Madame Curie was making her early experiments she was given the waste products of the mine at Joachimstal, and from them obtained the first radium. There is still much radioactive material in the mines, though it is not now given away as waste.

The small amounts of radioactive material and of arsenic which have been found in the dust of towns incline one to attach more importance to benzpyrene in this respect, but one must remember that (a) we have no data upon the minimum effective dust of any carcinogen in man, and (b) we do not know whether the effects of different carcinogens upon the same tissue can summate. Much research work is at present being undertaken in an endeavour to learn more about cancer and its cause. In this country, the British Cancer Campaign has instituted a long term survey of the Cheshire and North Wales area, one of its aims being to make a statistical study of environmental history preceding the onset of cancer of different organs. Such studies backed by the experiments of chemists and pathologists both here and abroad should ultimately help to conquer even this dread disease.



## Fogs.

A fog is defined as a period when the concentration of soot exceeds 1.25 m.g. per cubic metre. The solid particles of the air form the nuclei upon which water condenses to form mists and fogs. Much has been written on this subject, and while no one disputes the inconvenience, discomfort and nuisance caused by fogs, evidence as to their devastating effect on the death rate is hard to find. Sometimes fogs have come and gone and no apparent statistical effect has been recorded in the mortality tables; nor is it at all certain that rapid and far reaching conclusions can be drawn by reference to weekly death rates over short periods of time. I carefully studied the Glasgow figures for the beginning of this year, hoping to draw some dramatic conclusions from our few days of fog, but this year's statistics show no connection. A definite epidemic of influenza with an increase in pneumonia began in mid February after a week with the highest average of sunshine so far in the year and not even a misty day. The infant mortality rate was exceptionally low for the first three months of the year in spite of a considerable variation in weather. Similar negative correlation between deaths from respiratory disease and air pollution have been reported from investigations carried out in Dublin<sup>16</sup>. On the other hand, Logan<sup>17</sup> in describing the London fog of November, 1948, and Macgregor<sup>18</sup> when reporting on the Glasgow fog of 1929 both concluded that these fogs almost doubled the death rate from respiratory disease among the elderly, deaths in the main being due to bronchitis or pneumonia. Logan also comments on the increase in deaths from myocardial degeneration and cancer. The argument that cold is primarily responsible for the increased death rate is countered by the experience of January, 1940, reported by Professor J. Johnstone Jervis<sup>19</sup> at Leeds. Harrogate and Ilkley had lower temperatures but more sunshine, but their fogs were not polluted by as much smoke as Leeds and their death rates were very low compared with that of Leeds.

It would be of interest to know if certain of the increased death rates of the past have primarily been due to other causes, for instance, the presence of the influenza virus. Again, the improvements already obtained by the Society have sufficed to make actual fogs less frequent, and when they do occur they are less dense and of shorter duration. For example, in 1921-22 Glasgow had 290 hours of fog and in 1951-52 only 156. Of course, there are certain meteorological and topographical conditions which lead to dangerous concentration of fog. Both the

Meuse and the Donora incidents were due to temperature inversion in highly industrialised areas. Los Angeles could be cited as an example of a town which suffers frequently from polluted fogs. It does not have a smoke problem as it burns gas and oil, but the invisible contaminants, particularly derivatives of sulphur, are responsible for severe lachrymation and irritation of the nasal passages of the inhabitants<sup>20</sup>.

### THE GASEOUS POLLUTANTS OF THE AIR.

The most dangerous of the gaseous pollutants of the air are sulphur dioxide, fluorine and carbon monoxide. Sulphur is found in small quantities in coal, but can contribute a considerable degree of contamination to the air. The British Electricity Authority has stated that power stations in the valley of the Yorkshire Don emit as much as 120 tons of sulphur dioxide a day. The damage it does to ironwork, stonework and vegetation is obvious. The real damage it does to those who cough and wipe smarting eyes is less obvious, but it is an active irritant searching out respiratory weakness with deadly effect. The casualties of the Meuse fog were originally attributed to poisoning by sulphur, but arguments have been put forth that fluorine compounds from a nearby fertiliser works<sup>21</sup> were really the main cause of the deaths. Similarly, in the Donora episode sulphur was but one of several contaminants which had the cumulative tragic effect<sup>22</sup>. Legally four grains per cubic foot are allowed before action can be taken against a firm for polluting the air. Of course, as sulphur dioxide kills insects we might even make a case for it as an aid to preventive medicine, but I prefer a more controlled use of insecticides than that provided by smoking chimneys.

The effect of emissions of fluorine from the Aluminum Factory at Fort William was investigated recently<sup>23</sup>. Both animals and vegetation had been affected, and workers in the factory showed definite changes in bone structure, although so far no clinical disability had resulted. This is not to say that disability may not ultimately occur, as the progressive course of fluorosis is slow. Everything practicable must be done to reduce the amount of fluorine discharged into the atmosphere. This applies equally to any chemical works whose chimneys emit fumes. There are 85 works registered in Scotland under the Alkali, etc., Works Regulation Act, all of which require to be most carefully controlled<sup>24</sup>.

Carbon monoxide is produced where organic substances are burned in the absence of sufficient oxygen to transform all the carbon into carbon dioxide. The exhaust fumes of cars contain 5-10 per cent. carbon monoxide, and practically every home and every industry contributes some of this pollutant in the air. The effect on the body is to cause anorexia. The haemoglobin of the blood combines with carbon monoxide more readily than with the purifying oxygen and makes a more stable compound; therefore, it is only slowly expelled from the blood. It is interesting to note that a man who smokes twenty cigarettes a day absorbs enough carbon monoxide to maintain 5 per cent. of the haemoglobin in the carboxy form<sup>25</sup>. Some authorities claim that repeated exposures to low concentrates lead to some degree of acclimatization, and traffic policemen, though constantly exposed, do not get chronic carbon monoxide poisoning<sup>26</sup>. Bronchitis and pneumonia following acute asphyxiation due to prolonged or concentrated exposure to carbon monoxide are in the main due to circulatory disturbances. There is no evidence to show that the inhaling of carbon monoxide lowers resistance to respiratory infections.

Other authorities<sup>27</sup> claim that even traces of carbon monoxide are deleterious, as it has an accumulative effect, destroying the red blood corpuscles and affecting even the white ones, and that this damage is more intense in long exposures to low concentration than in brief exposures to high concentration. It is universally admitted that 58 per cent. saturation of the haemoglobin results in death.

Common sense precautions against such actions as parking one's car so that the heater sucks in the exhaust fumes of the car in front are, of course, wise. Car accidents of unexplained origin may very well result from the dizziness and mental confusion and form part of the symptoms of this poisoning. It is an obvious necessity to maintain the exhaust system of one's car in good condition. Domestic accidents also occur with depressing frequency from gas appliances. A recent press report of four old ladies being asphyxiated by the slow burning anthracite stove in their bedroom is an example of a preventable accident. As atomic research proceeds one hopes that knowledge of protection will keep pace with the discoveries. It is interesting to note that the dangers of beryllium, for example, have only been known quite recently. The war-time and post-war use of this substance for neon lighting and a variety of commercial uses showed the danger of even a small degree of atmospheric contamination. Acute and chronic lung disease and skin lesions have resulted from exposure to beryllium

compounds. On one occasion ten persons contracted lung disease from the inhalation of the fine dust carried by the wind from a factory a mile away<sup>26</sup>.

### CONCLUSION.

I have looked at this subject from a medical point of view, but I am well aware that there are many other aspects of this problem which show even more clearly the menace of polluted air. The effects on crops, for example, are far reaching. Smoke, by reducing sunshine impedes the process of photosynthesis, the soot deposit on the leaves suffocates the plants, the acids in the air lower their vitality, and the acids in the soil interfere with the work of the bacteria. The economist views air pollution as a matter of waste. It is certainly alarming to consider that four-fifths of the heat from a domestic fire is wasted, that four times as much sulphur as we need for our industries is lost in smoke, that only 6 per cent. of the coal used by a steam locomotive produces power. Heating and lighting are an important item in the housewife's weekly budget, and it is disappointing to find that the cleaner modes are by far the most expensive. It is evident that economics alone will continue to perpetuate the coal fire until such time as gas and electricity become comparable in price. The relative costs of various fuels are compared in Appendix III. The architect deplors the ravages of polluted air on the stonework of our cathedrals, public buildings and houses. The archaeologist reminds us that Cleopatra's Needle in London deteriorated visibly in decades after resisting the sand blast of the desert for centuries. In fact, everyone here can produce data on which air pollution stands condemned.

A problem with so many facets must obviously be dealt with on a national scale. Early attempts to do so met with little success. The proclamation of Edward I in 1306 was as ephemeral in effect as Elizabeth's attempts in the sixteenth century to protect Parliament while in session from the effect of "sea-cole." James VI's tirade against tobacco was as earnest and spirited as John Evelyn's "Fumifugium," a dissertation on the smoke of London (1661), yet both smoke nuisances increased. Much later, in the nineteenth century when the Industrial Revolution developed, more ways of using coal were found and more legislation against smoke nuisance produced: but William Morris could still write of "counties overhung with smoke." In 1920 the Newton Report gave sound suggestions which had little practical result. However, the Egerton recommendations with their



practical application set out so clearly in the Simon Report are being followed. There are many Government departments, such as the Department of Scientific and Industrial Research, the Fuel Efficiency Department of the Ministry of Fuel and Power, and the Scientific Advisory Council of the Ministry of Works, all of which contribute to the work of ending the smoke nuisance. Lord Simon confidently expects an end to it within thirty years. This is certainly comparatively rapid considering we have over 600 years of smoke pollution behind us, but I know that each of us here hopes that the problem can be solved before we become too old to benefit from

“ . . . the fair  
and open face of Heaven.”

Acknowledgment and thanks are due to the Medical Officers of Health of Ayr, Bolton, Burnley, Chester, Fifeshire, Harrogate, Liverpool, Manchester, St. Helens, Salford, South Shields and Warwickshire, and the Senior Sanitary Inspector of Durham; also to the following for their answers to letters:—Sir Ernest Kennaway, Dr. A. G. Mearns, Mr. Robert Robertson, Mrs. Tula Brocard, Dr. Balfour Black, Mr. Magnus Herd, Professor Cook and Dr. Percy Stocks.

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#### APPENDIX I.

*Percentage of available Daylight recorded at Glasgow Cross  
(Mearnskirk Hospital = 100 per cent.)*

Year.				Available Daylight. %	Daylight Lost.
1935-36	...	...	...	69	} Pre-war average 33%
1936-37	...	...	...	65	
1938-39	...	...	...	67	
1940-41	...	...	...	59	} Wartime average 46%
1941-42	...	...	...	56	
1942-43	...	...	...	54	
1943-44	...	...	...	46	
1946-47	...	...	...	74	} Post-war average 26%
1947-48	...	...	...	84	
1948-49	...	...	...	68	
1949-50	...	...	...	71	

## APPENDIX II.

*Sootfall in certain Towns.*  
*(tons per square mile per year).*

	1947	1948	1949	1950	1951
Burnley (Centre, Bank Hall)	268.92	343.20	385.44	401.88	394.65
St. Helens ... ..	327.91	322.93	359.7	264.74	256.14
Liverpool ... ..	243.6	243.0	294.6	282.4	259.5
Bolton ... ..	203.0	285.6	253.9	283.8	282.0
Manchester ... ..	214.2	227.28	247.08	254.76	267.12
Glasgow ... ..	156	163	144	137	163
Cardiff ... ..	138	121	112	132	116
Harrogate ... ..	66.85	59.71	62.92	74.87	97.51
Loch Katrine ... ..	—	—	17	12	15

## APPENDIX III.

*Comparison of Cost of Room Heating by different Fuels.*

Method.	Fuel.	Efficiency.	Cost per Useful Therm of Heat.
Old fashioned open fire	Coal (at 90/- a ton) ...	20%	18.5d.
Convactor open fire ...	Coal (at 90/- a ton) ...	40%	9.25d.
Closed stove ... ..	Anthracite (at 120/- a ton)	65%	6.8d.
Gas fire ... ..	Gas (at 1/3 a therm) ...	60%	25d.
Electric fire ... ..	Electricity (at 1d. a unit)	100%	29.3d

## SECTION XII.

### GENERAL SANITARY ADMINISTRATION.

#### CENTRAL DIVISION.

Probably the word most descriptive of the year's work in the Division is "routine." Nothing of an exceptional nature stirred the waters. The volume and type of nuisances dealt with showed little change, and the theme of dwelling-house property deterioration continued its depressingly familiar dominance. Considering the undoubted difficulties with which many property owners are faced, the amount of work undertaken in the course of nuisance abatement must be regarded as quite remarkable. The joint ownership of property brought about by the sale of tenement houses, shops and office flats raised difficulties in one or two cases during the year. The obtaining of agreement among a number of joint owners to accept their liabilities is the main trouble, causing some delay in having notices complied with. This administrative difficulty is, unfortunately, likely to be encountered more often in the future and there would appear to be no short cut to a solution.

The other branches of the work of the inspectorate—factory inspection, drainage, rodent control, and the booking of infectious diseases—were normally administered with little scope for comment. Advantage was taken of the continued lull in slum clearance activities to commence a resurvey of the housing position in the Division. This will inevitably take a considerable time to complete. Legal proceedings in respect of the "basement" bakehouse referred to in last year's report dragged on throughout the year and did not reach a conclusion

until November. Fuller mention of these varied activities is made under the appropriate headings and detailed figures are to be found in Table XVII of the Appendix.

*Nuisances.*—As already indicated, there was little of note to report in this field. Complaints of defective roofs were more numerous and rose sharply after every spell of wet weather. Undoubtedly many roofs are in urgent need of a complete overhaul ; the patching which is generally resorted to is, in most cases, a very temporary palliative. Statutory notices under Section 20 of the 1897 Act were served in eight instances where undue delay occurred in having a nuisance abated. Two prosecutions in the Sheriff Court were found necessary. In one the work was completed before the date of the diet and the case withdrawn on payment of the Town Clerk's expenses. In the other, proceedings were dropped when the Dean of Guild, before the date of the diet, declared the building to be dangerous and passed a demolition order on it.

*Rodent Control.*—This branch of the work demanded the full-time activities of two inspectors and an average of four trappers during the year. The existence of the rodent control organisation has become well known to the public and especially occupiers of business premises, and there is no sign of any abatement in the demand for its services. 5,281 visits of inspection were made during the year and 781 properties treated. An interesting feature was the increased number of mice infestations reported and dealt with. Several of these were of a very heavy nature and good results were obtained. The known result of the year's work was 4,247 rats and 2,268 mice killed. It should be pointed out that the total number of rats is almost certainly much higher, as in most of the poisoning and gassing operations few carcasses are recovered.

Towards the end of the year a refresher course in all aspects of rodent control was conducted by the Department of Agriculture for the benefit of inspectors and operatives. This proved extremely valuable, and a gratifying feature was the assurance that the results of the continual research work carried on by the central authority will be readily available to local authority officials.

The complete result of the year's work is given below in tabular form—

No. of visits ... ..	5,281	Types of premises treated—	
No. of premises treated ... ..	781	Restaurants ... ..	35
Rodents killed—		Food shops ... ..	49
Rats ... ..	4,247	Other shops ... ..	84
Mice ... ..	2,268	Factories ... ..	89
	<u>6,515</u>	Food stores ... ..	8
		Other stores ... ..	49
Amount of Accounts rendered	£956 7 8	Dwelling-houses ... ..	219
Paid ... ..	812 19 5	Farms ... ..	2
		Stables ... ..	1
*Outstanding ... ..	<u>£143 8 3</u>	Piggeries ... ..	2
Low Rental Houses—		Wash-houses, cellars ... ..	145
No. treated free of charge ... ..	200	Back courts ... ..	26
No. of hours worked ... ..	961	Embankments, open spaces	32
Estimated cost ... ..	£240 5 0	Miscellaneous ... ..	40
			<u>781</u>

\* Many of these accounts were rendered just prior to the end of the year and do not fall into the "bad debt" category.

*Factories Act, 1937.*—This followed normal lines throughout the year. Inspection was well maintained and resulted in the notification to occupiers or owners of defects, mostly of a minor nature. The majority had been remedied by the end of the year without trouble. A close surveillance was maintained on one or two bakehouses where conditions of cleanliness were not too satisfactory. The legal proceedings taken against a restaurant proprietor for an offence against Section 54 of the Act, which prohibits the use of premises not previously so used as a "basement" bakehouse and to which reference was made in last year's report, were not finally concluded until November. It will be recollected that the restaurateur was fined £35 in the Sheriff Court for the original infringement of the Section. He applied in the Court of Session for a Bill of Suspension of this conviction. The court upheld the conviction, but reduced the penalty to £5. Thereafter, two further charges which had been held over pending the result of the action in the Court of Session were proceeded with. These were taken under Section 131 of the Act which makes liable to a daily penalty of £5 anyone found guilty of continuing an offence under the Act of which he has already been convicted. On the first charge involving 19 dates the respondent was fined £50; on a second charge covering four dates he was admonished. Following this, baking was discontinued, and part of the premises involved have now been converted into a cloakroom.



*Catering Establishments.*—As a result of the conditions found during the survey of catering establishments, it was decided that a need existed for a campaign of propaganda in favour of more hygienic food handling. The willing co-operation of the Scottish Information Office was secured in providing films, operators and the use of their cinema theatre at 123 Hope Street.

The method adopted was to circularise all the large restaurants, tearooms, cafes, hotels, works canteens, etc., explaining the purpose of the scheme and inviting their co-operation. They were given the option of sending their staffs to the theatre in Hope Street at suitable times or providing facilities for a showing in their own premises.

After a somewhat slow start a good response was obtained and the film unit visited 38 establishments, at some of which three or four showings were necessary to cover the entire staff, while 16 theatre showings were held. A total of 2,088 persons—chefs, waitresses, kitchen employees and others—saw the films and from the reactions noted and the appreciative comments of many managements it may be assumed that the organising effort involved was well worth while. The two films shown were “Another Case of Poisoning” and “Fly about the House.” These were preceded by a very brief talk by a member of the staff on the purposes of the campaign and the necessity for the lessons conveyed in the films being assimilated by all those engaged in handling food for human consumption.

*Rag Flock and other Filling Materials Act, 1951.*—Since the findings of the Merthyr Committee were published this piece of legislation has been awaited with some interest. The new Act embodies most of the recommendations of the Committee : a notable exception is in regard to labelling. A great improvement on the old Rag Flock Acts is the bringing under control of a number of other fillings normally used in upholstery work. The standards of cleanliness to which fillings must now conform are much higher and should ensure a more hygienic product. The Act came into force on 1st November, and so far administrative action has been confined to the licensing and registration of premises. One or two cases have already occurred where doubt has arisen as to whether registration is necessary. Probably a legal definition of what constitutes “reconditioning” will be necessary to clarify the situation. The exclusion from the Act of second-hand fillings leaves a gap which may require to be filled after experience of

the new conditions has been gained. So far, two licences and 28 registrations have been granted.

*Piggeries.*—One small piggery closed down during the year, leaving five on the register with accommodation for 1,343 pigs. The usual inspections were carried out and no conditions calling for comment were found.

*Common Closes and Stairs—Limewashing and Painting.*—This work entailed the issue of 562 notices in addition to which many reminding letters had to be sent. By the end of the year, 458 notices had been complied with ; in addition, 930 properties were done voluntarily by the owners, making a total of 1,388—a highly satisfactory figure in these times. It was found necessary to take proceedings in court against one owner who failed to fulfil his obligations despite repeated requests. The case was continued by the magistrate to allow the work to be carried out, and on completion the defendant was admonished.

*Drainage.*—Housing developments in the Thornwood and Blairdardie areas led to an appreciable increase in the work of testing new drains and plumberwork. It has been found impossible to get the Housing Department to conform to the drainage bye-laws: full advantage is taken of the powers of relaxation conferred by the Housing Act, 1950. Time will show whether the fears entertained of nuisance and danger to health arising from these departures from the orthodox are, in fact, justified.

*Housing.*—The operation of the Housing Acts remained practically at a standstill during the year. A Closing Order was applied to one tenement of nine houses, which was subsequently demolished. Dean of Guild action was taken against seven more tenements containing 99 houses on the grounds that they were dangerous. Eleven tenements previously condemned by the Dean of Guild and containing 144 houses were demolished.

Four more tenements were abandoned by the owners during the year. These contained a total of 43 houses and will require to be maintained at a minimum hygienic standard by the Department. Accounts rendered for work carried out in abandoned and condemned properties during the year totalled £82 9s. 3d.

The following is a tabular statement of the position at the end of the year :—

Address.	How dealt with.	No. and Size of Houses.					Remarks.
		1 apt.	2 apts.	3 apts.	4 apts.	Total	
3 Finnieston Place ...	Closing Order ...	1	4	4	—	9	Demolished.
91 Finnieston Street	Dean of Guild ...	4	8	—	—	12	Do.
635 Argyle Street ...	Do. ...	—	6	6	—	12	Do.
117 Cheapside Street	Do. ...	—	8	—	—	8	Do.
23/29 Dean Street ...	Do. ...	19	4	3	—	26	Do.
13 Lugton Street ...	Do. ...	18	1	—	—	19	Do.
21 Balmano Street ...	Do. ...	—	8	—	—	8	Do.
11/13/15 Tarbet St.	Do. ...	17	18	4	2	41	Do.
29 Wemyss Street ...	Do. ...	—	12	—	—	12	Do.
39 Wemyss Street ...	Do. ...	—	—	6	—	6	Do.
2 Catherine Place ...	Do. ...	—	15	1	—	16	Awaiting rehousing.
226 William Street ...	Do. ...	8	8	—	—	16	Do.
236 William Street ...	Do. ...	7	7	1	—	15	Do.
57 Wemyss Street ...	Do. ...	—	6	4	—	10	Do.
24½/28 Balmano St.	Do. ...	—	6	8	—	14	Do.
20 Crawford Street ...	Do. ...	—	16	—	—	16	Do.
24 Crawford Street ...	Do. ...	—	16	—	—	16	Do.
		74	143	37	2	256	

Thirty-two tenements were offered to the Corporation during the year, of which 21 were accepted and 11 refused. The accepted properties, together with a number of vacant sites, were almost all situated in Townhead Redevelopment Area (No. 2) situated between George Street and Rottenrow.

Building operations added a total of 419 houses, comprising 168 of three apartments and 260 of four apartments. The Thornwood Scheme accounted for 234 of these and the Blairdardie Scheme for 116. The conversion of large houses accounted for 38 of the remainder, which also led to the loss of nine houses of five or more apartments.

*Common Lodging Houses.*—There was no change in the conditions or number of these establishments which were kept under regular inspection. Only minor deflections from the bye-laws were noted and these were remedied after verbal warning. The legal position of some of these lodging houses continues to be obscure as no response has been forthcoming to the enquiry lodged with the Town Clerk regarding those where the sum charged nightly exceeds the permitted maximum of one shilling.

*Rent Restrictions Acts.*—Applications for certificates of disrepair totalled 71, of which 29 were granted and 42 refused. Many of the applications emanated from an area which possesses a very active Tenants' Association. One application for a report by an owner was received and granted.

*Aged and Infirm People.*—The attention of the inspectors was drawn to a number of cases of old people living alone and without proper care and attention. Their plight is generally brought to the notice of the Department by neighbours or by some social agency. The alleviation of their condition—a duty which cannot be avoided—is still on a rather haphazard basis.

In one of the cases it was found necessary to use the powers of compulsory removal contained in Section 47 of the National Assistance Act, 1947. The old woman concerned was removed to Oakbank Hospital and has since given up tenancy of the house. Another case concerned an elderly widow living alone, except for a Japanese servant, in a fourteen-apartment house. The Japanese servant was found to be in need of medical attention and was removed to hospital. It was then found necessary to have her mistress certified and removed. As the house was packed with articles and furniture, much of it obviously valuable, the Welfare Section of the Department was called in. During their search of the house they found about £400 in loose cash and some thousands of pounds worth of shares.

*Nurse Inspectresses.*—The work of “rehousing” and “intermediate” housing scheme supervision and the inspection of school children was carried on throughout the year by the nurse inspectresses with nothing calling for special comment. The nurse inspectresses were also responsible for the visitation of old houses where the tenants were being rehoused by the Corporation. The object of such visits is to ensure that the furniture and bedding is clean and free from vermin. Where conditions are not found satisfactory, removal to the new abode is delayed until the nurse inspectress is satisfied. One thousand and eighty-eight such removals were dealt with, involving in some cases several visits.

*Sanitary Conveniences.*—Some changes occurred in the number of these as the result of new building and the demolition of old properties. The position is now as follows :—

## Water-closets used in common—

Serving 2 tenants	...	...	1,013	decreased by	...	10
" 3	"	...	1,246	"	...	13
" 4	"	...	616	"	...	15
" 5	"	...	207	"	...	12
			<u>3,082</u>			<u>50</u>

Dry closets and privy middens	...	18		
Ashpits	... ..	35	reduced by	... 8
Houses with no internal water supply		42		
Houses with baths	... ..	34,222	increased by	... 419

GEORGE D. LAUDER,  
*Divisional Sanitary Inspector.*

## NORTHERN DIVISION.

The area of the Division extends to 8,172 acres and has an estimated population of 250,088 persons, equal to a density of 30·60 persons per acre.

There are 68,088 dwellinghouses distributed throughout the Division (see table below). This is a net increase of 611 houses.

Ward.	Total Number of Houses in Northern Division at 31st December, 1951.						At 31st December, 1950.
	1 apt.	2 apts.	3 apts.	4 apts.	5 apts.+	Total.	Total.
8	1,441	4,731	1,724	244	34	8,173	8,194
9	631	2,289	2,143	2,622	327	8,012	7,603
10	1,450	5,238	2,369	634	124	9,815	9,829
14	1,471	4,554	1,404	175	59	7,663	7,671
15	1,815	4,396	1,204	398	291	8,104	8,209
16	573	2,732	5,182	2,175	236	10,898	10,503
17	1,329	4,078	1,908	548	588	8,451	8,468
18	641	3,349	2,194	588	200	6,972	7,000
Total	<u>9,351</u>	<u>31,367</u>	<u>18,128</u>	<u>7,384</u>	<u>1,859</u>	<u>68,088</u>	<u>67,477</u>

The Division is densely populated and the maintenance of an efficient sanitary service is of prime importance.

Unfortunately the inspectorial staff was seriously depleted by resignation during the year, the opportunity of higher rewards in other fields of service attracting a number of members from the ranks.



Details of the work undertaken during the year 1951 are as follows :—

### PUBLIC HEALTH (SCOTLAND) ACT, 1897.

*Nuisances.*—Routine inspection of districts and investigation of complaints brought to light the existence of 12,145 nuisances, about which intimations in terms of Section 19 of the Act were issued. By the end of the year 11,638 of the nuisances had been abated. Three thousand and seventy-eight complaints were received during the year. These covered a wide range of conditions, including choked sanitary fittings and drains, defective roofs, defective chimneys, dampness in dwellings, insect and vermin infestations, accumulations of refuse, and offensive odours. Eighteen notices in terms of Section 20 of the Act had to be issued, but recourse to court proceedings was not necessary. Table XVII gives details of the matters dealt with; none of these calls for special reference.

Conditions arising from the conduct of a private coup at Springburn Road, north of Hawthorn Street, gave cause for concern from time to time during the year. Many thousand tons of material are being tipped daily and the operators of the coup have not been so careful with the spreading and dressing of the material as they might; in consequence nuisance from the haphazard disposal of the refuse and from smoke of burning material has arisen. It has also been necessary to deal with heavy rat infestations at regular intervals. A measure of co-operation is now being given by the operators but the extent of the coup makes control of nuisance difficult.

*Fly Nuisance.*—Steps were again taken early in the year to control nuisance arising from flies. All premises including stables where flies were likely to breed were visited and arrangements made for the periodic removal of organic matter. Dung-pits, ash-bin shelters and other structures used for the storage of organic material were sprayed at intervals with a preparation of whitewash and D.D.T. by the Department's Disinfestation Unit.

Emergency action was necessary to deal with a large deposit of decomposing crustaceous material brought on to allotments adjacent to dwellinghouses. The material had been obtained at the Docks where a ship was being scraped of sea growth and was thought by one of the allotment holders to be eminently suitable as a fertiliser. When discovered on the allotments the material was a mass of fly maggots

and immediate steps were taken to have it and the surrounding areas sprayed with a D.D.T. solution and the material dug into the ground. As the cost of the spraying was borne by the Allotment Holders' Association, greater care will be taken in future as to the source from which fertilisers are obtained.

*Offensive Trades.*—Five trades licensed under the Act are conducted in the Division, viz. :—

Skin and Hide Factor.

Soap Boiler.

Tanner.

Horse Slaughterer.

Knacker.

Fifty-six visits were made to the premises in the course of the year and any defect or fault was readily dealt with by those conducting the businesses.

An outbreak of anthrax among some animals in Calderpark Zoo was thought to be associated with dead meat supplied from the Knackery at Pinkston Road.

As the cause of death of many of the animals brought to the Knackery is obscure, precautionary action was taken. This included the immediate disposal of all carcasses and viscera by processing it in digesters, and the thorough disinfection of the premises and equipment by formaldehyde and the steam disinfection of all outer garments worn by those employed in the knackery. Notice of the incident was sent to those local authorities into whose area material had been sent during the preceding week.

*Piggeries.*—Eighteen piggeries with accommodation for 3,370 pigs were licensed, an increase of one. On the whole these were conducted in a satisfactory manner and without nuisance. During the year the premises were visited on 73 occasions.

*Common Lodging Houses.*—There are now only four lodging houses registered within the Division, giving accommodation for 1,325 persons. A house previously registered ceased to function as a lodging-house on 31st December, 1950. It has been reconstructed as office premises.

## COMMON LODGING HOUSES REGISTERED IN DIVISION.

Lodging House	Licensed Accommodation for Males	Duration of Residence of Lodgers			Casual	Age Groups		Working	Unemployed
		Over 1 year	Over 6 months	Over 1 month		Under 65 years	Over 65 years		
N. Woodside Road (Corporation)	284	222	40	10	12	108	176	200	84
Drygate (Corporation)	300	188	33	29	50	170	130	120	180
McPhater Street (Private)	215	190	6	8	11	180	35	150	65
Burns Street (Private)	250	204	30	10	6	180	70	175	75

Changing social conditions have brought about changes in the type of person inhabiting lodging-houses. From the table above it will be noted that a large portion of the lodgers are in the old-age group—65 years of age and over, and that the majority of the lodgers are more or less permanent residents. In the old days few of the lodgers remained long in residence, consisting as they did of casual labourers and vagrants, and they moved about wherever work became available. They were virile and could put up with considerable personal discomfort.

The lodging-houses, while complying with existing bye-laws, provide for only the barest necessities of life and in no way do they compare with a home. A problem that has been giving some cause for concern is the lack of sufficient sick-room accommodation to which patients can be removed and receive attention until a hospital bed becomes available. It has not been uncommon to find an old man confined to his cubicle for several days awaiting removal to hospital. A review of living standards in common lodging-houses is worthy of consideration.

During the year the lodging-houses were visited on 105 occasions and 22 defects brought to the notice of the Keepers.

*Tents, Vans and Sheds.*—There are seven areas within the Division for which the owners have been given permission by the local authority to let for accommodating movable structures used for human habitation. These have been visited on 128 occasions and the conditions under which they are being conducted were found to be satisfactory.

## GLASGOW POLICE ACTS.

*Cleansing of Common Passages and Stairs.*—In the course of the year 2,342 visits were made to properties in connection with close and stair cleansing. It was found necessary to issue 1,289 rotation cards

to regulate the cleansing by tenants and to administer 1,434 verbal warnings against failure to observe the bye-laws. Court proceedings were instituted on nine occasions where persistent defaulting of the byelaws had occurred.

*Limewashing and Painting of Walls, etc., of Closes and Staircases.*—Routine visitation to assess the necessity of enforcing the law in connection with the limewashing, etc., of walls of closes and staircases in tenemental property accounted for 12,081 visits and the consequent issue of 979 Statutory Notices. In the course of the year the walls of passages and staircases were limewashed and/or painted in 1,345 properties, including 462 done voluntarily by their owners.

The increasing cost of this work when taken along with the other liabilities for the maintenance of property is perturbing the owners and accounts for the considerable delay between the issue of the notice and the carrying out of the work. At the end of the year 178 notices issued had not been complied with. In the circumstances one hesitates to resort to court proceedings and much time is spent trying to persuade those responsible to carry out the work.

*Dirty Houses and Bedding.*—There was a considerable decrease in the number of households in which action was necessary on account of dirty conditions, 83 as compared with 291 in 1950. There is no real significance in this reduction, for without house-to-house visitation it is only by chance that the grossly dirty conditions come to our notice. Nevertheless, it is safe to say that in the community as a whole the standard of household cleanliness is good. As in previous years, a number of the houses dealt with were occupied by old people living alone and in need of care and attention. In these cases the Department undertook to cleanse the house and arranged for domestic help.

*Drainage.*—Building operations during 1951 were considerable and in consequence there was a constant demand on the services of the staff for the testing and inspection of drainage. The Smoke-test was applied on 920 occasions and the supervision of work in course of construction involved 3,532 visits. The standard of workmanship was found to be good and there did not appear to be the same difficulty in obtaining suitable materials as in previous years.

Early approval of amended byelaws is essential so that there can be uniformity of practice throughout the City. As it is, a code of



practice acceptable in Housing Schemes is not acceptable in work sanctioned by the Dean of Guild Court. This Gilbertian position leads to difficulty when discussing design of drainage with architects and contractors.

*Water Supplies.*—The check on the bacteriological quality of the water supplies to the city from Loch Katrine was continued as in former years and 405 specimens obtained at the Milngavie Service Reservoir were submitted to the City Bacteriologist for analysis. The water entering the service mains was found to be consistently pure and of high quality.

Because of staff shortage routine inspection of cisterns for the storage of water for dietetic purposes had to be dispensed with. Fifteen inspections of cisterns were carried out where complaint of the quality of water was made by the consumers. Appropriate action was taken to have the cisterns cleansed where this was found necessary. Faulty water fittings, giving rise to waste of water, were brought to the notice of the Water Engineer on 591 occasions.

*Prevention of Damage by Pests Act, 1949.*—Operations for the destruction of rats and mice under this Act have proceeded smoothly, largely due to the co-operation of the owners and occupiers of premises found infested. There was a marked decrease in the number of premises found infested, also in the degree of infestation found. Undoubtedly the intensive destruction operations carried out during the past few years are having a marked effect on the rat population.

In the course of the year 2,931 premises were visited and 377 were found infested in varying degrees. The supervision of destruction operations and rat proofing of premises required a further 2,500 visits. Over 7,000 rats were accounted for.

The attached table sets out in detail the type of premises visited and the result of the operations.

#### FACTORIES ACTS, 1937 and 1948.

Routine inspection of factories as required in terms of the above Acts accounted for 3,453 visits and the discovery of 268 defects. There was no difficulty in having the defects remedied when these were brought to the notice of the managements concerned.



# RAT DESTRUCTION OPERATIONS UNDERTAKEN DURING 1951.

249

Type of Premises.	No. Visited.	No. of Premises found infested.	Degree of Infestation. Light. Heavy.	Rats Destroyed.	Hours chargeable to Owner or Occupier.	Cost to Owner or Occupier. £ s. d.	No. of Visits made <i>re</i> proofing and trapping.	Premises proofed.
Dwelling-houses and basement cellars	1,511	256	244 12	1,401	1,588½	397 1 3	1,192	167
Offices and Institutions	...	97	13	—	140½	35 2 6	74	11
Food Factories	...	87	6 4	245	135½	33 17 6	69	8
Food Shops	...	270	15	—	65½	16 7 6	213	14
General Factories	...	303	13 13	1,470	304½	76 2 6	239	6
General Shops	...	404	28 2	137	77½	19 6 3	318	21
Restaurants	...	57	6 6	—	55	13 15 0	43	6
Farms, Stables, Piggeries, etc.	...	157	4 8	966	199½	49 16 3	125	1
Offensive Trades	...	13	—	5 461	152	38 0 0	10	1
Coups	...	29	—	1 41	10½	2 12 6	23	—
Sewers	...	3 areas	—	3 2,220	116	29 0 0	194	—
Totals	...	2,931	377 329 48	7,082	2,844½	711 1 3	2,500	235

During the year 686 mice were destroyed.

A number of new factories were added to the Register during the year, including the extensive Joinery Department, built by Messrs. Brownlee & Co., Ltd., City Sawmills, in Saracen Street. Also some 22 firms carried out fairly extensive alterations or additions which included new sanitary conveniences—an indication of the increased industrial prosperity occurring in the Division. Factories on the register include—

						1951	1950
Mechanical	...	...	...	...	...	676	618
Non-mechanical	...	...	...	...	...	38	35
Mechanical Bakehouses	...	...	...	...	...	63	51
Non-mechanical Bakehouses	...	...	...	...	...	43	33

In addition, 396 workplaces are listed and were visited to determine whether satisfactory conditions were being maintained.

The homes of three outworkers were visited in terms of Section III of the Act. Conditions in the homes were found to be satisfactory.

*Catering Establishments.*—Following up the survey carried out during 1950, catering establishments were revisited and it was very satisfactory to find that many of the suggested improvements in the structure of the premises and in the technique of handling food had been carried into effect.

A similar survey of bakehouses and fish-restaurants was undertaken during 1951. Again the points noted included

Structure	...	...	Floors, walls, ceilings, ventilation and lighting.
Space	...	...	Arrangement of premises with regard to storage, preparation of commodities and subsequent cleansing of equipment.
Facilities	...	...	Equipment used in the course of preparation of commodities; adequacy of sinks and hot and cold water supplies, refrigerator for storage of prepared food.
Sanitary Conveniences	...	...	Adequacy and suitability of w.c. accommodation for staff, washing facilities including soap, towel and nail brush, and cloakroom accommodation.
Disposal of Refuse	...	...	Adequacy and position of bins.

In the course of the survey 104 bakehouses and 117 fish-restaurants were visited. Of these, a little over one-third were found completely satisfactory.

Congestion of premises was the principal defect found. Many of the businesses had started in a small way in shops but with an increasing

turnover the lack of space was creating difficulties in the maintenance of cleanliness of floors and of fixtures. The most serious deficiency found was the lack of a constant supply of hot water at sinks. It was noted that the premises were remarkably free from insect infestations—cockroaches. In the past cockroach infestation in bakehouses was accepted as being part of the order of things. The absence of infestations is indicative of the higher standard of hygiene obtaining in bakehouses.

Details of the conditions found are tabulated below. The majority of the defects had been remedied by the end of the year.

#### SURVEY OF BAKEHOUSES AND FISH-RESTAURANTS, 1951.

	Bakehouses				Fish Restaurants
No. of premises visited	...	...	...	104	117
No. found satisfactory	...	...	...	45	32
No. unsatisfactory due to—					
Bad structure	...	...	...	8	6
No separate storage accommodation	...	...	...	18	2
Disrepair of floors	...	...	...	9	7
Disrepair of walls	...	...	...	7	4
Disrepair of ceilings	...	...	...	3	1
Disrepair of fixtures	...	...	...	5	13
Insufficient ventilation	...	...	...	2	3
Insufficient light	...	...	...	3	1
Dirty floors	...	...	...	19	12
Dirty walls	...	...	...	29	27
Dirty ceilings	...	...	...	27	24
Dirty equipment	...	...	...	7	10
Dirty utensils	...	...	...	5	10
Dirty fixtures	...	...	...	8	16
Inadequate washing facilities	...	...	...	4	—
No running supply of hot water	...	...	...	39	85
Insufficient temperature of hot water	...	...	...	4	2
No refrigerator available	...	...	...	62	46
Inadequate sanitary conveniences	...	...	...	5	3
Sanitary conveniences without towel	...	...	...	12	4
Sanitary conveniences without soap	...	...	...	9	4
No cloakroom for staff	...	...	...	25	28
No supply of overalls to staff	...	...	...	54	117
No illness register kept	...	...	...	88	117
Defective refuse bins or refuse removal	...	...	...	16	10
Vermin infestation	...	...	...	2	1

#### RAG FLOCK AND OTHER FILLING MATERIALS ACT, 1951.

With the coming into force of the Rag Flock and Other Filling Materials Act on 1st November, 1951, there passed from the statute books one of the most unsatisfactory pieces of legislation the Local

Authorities were required to administer, viz., Rag Flock Acts of 1911 and 1928.

The new Act is much more comprehensive than the old, in that it covers all filling materials used for bedding and upholstered articles, including toys. The need for this was apparent to all who had any knowledge of the trade, for in addition to rag flock many of the materials used for filling were subject to organic and bacterial contamination.

An important provision of the new Act is the registration of all premises where all filling materials are used with certain exceptions, and the licensing annually of premises where rag flock is manufactured. It is an offence to use unregistered or unlicensed premises. The onus of registering and licensing premises is placed on the Local Authority.

The Regulations made under the Act prescribe standards of cleanliness for the different filling materials and the mode of sampling. The methods of testing for cleanliness are highly technical and require considerable apparatus, and only a few analysts can undertake the work. A list of prescribed analysts is given in the Regulations, but unfortunately they are all operating in England and there will be some inconvenience in transmitting samples from Glasgow.

It is unfortunate that the terms of the Act do not extend to those premises where upholstered articles are repaired. It is quite conceivable that much dirty filling material is used in making up loss or wastage.

By the end of the year fourteen premises were registered in terms of the Act and one application for licence was reported upon and granted.

#### HOUSING (SCOTLAND) ACT, 1950.

The Housing (Scotland) Act, 1950, became operative from the 1st January, 1951, and reproduces in consolidated form, without amendment, the law contained in the Housing (Scotland) Acts, 1925 to 1949.

The need for consolidation was apparent to all who had in any way to administer the Housing Acts. Many overlapping pieces of legislation

have been eliminated and fragments of current law brought within one enactment.

The provision of new houses within the Division proceeds with increasing rapidity. Both traditional and non-traditional houses are being built. The traditional includes flats and tenements, and the non-traditional Blackburn, Foam Slag, B.I.S.F., Stewart, Athol, Myton and Lawrence.

There are three major housing schemes in course of development, viz. :—

Milton Scheme	...	...	...	comprising 2,972 houses.
Barmulloch Scheme	...	...	...	comprising 1,656 houses.
Cadder Road Scheme	...	...	...	comprising 976 houses.

During the year the following number of houses were completed in the first and second of these schemes :—

				3-apt.	4-apt.	5-apt.
Milton Scheme	...	...	...	92	496	95
Barmulloch Scheme	...	...	...	—	398	—
				—	—	—
				92	894	95
				—	—	—

Since 1945, 4,179 permanent and 413 temporary houses have been built in the Division, and of these 1,285 houses were completed in 1951.

Despite the construction of new houses, less progress has been made in dealing with those houses unfit for human habitation.

During the year, 94 houses were represented to the Local Authority as being unfit in terms of Section 9 of the Act. In the same period the Master of Works had to report to the Dean of Guild Court three properties containing 44 houses as being unsafe when demolition was ordered.

From the following table it will be noted that 287 houses have been actually closed or demolished, including a number reported upon in earlier years.



## HOUSES DEMOLISHED OR CLOSED DURING 1951.

				Demolished.	Closed.	Demolition or Closure Pending— Awaiting Rehousing of Tenants.	Total.
Represented under Housing Acts,							
1951	...	...	...	—	79	15	94
Previous Years	...	...	...	—	34	—	34
Reported by Master of Works to the Dean of Guild Court—							
1951	...	...	...	—	—	44	44
Previous Years	...	...	...	174	—	20	194
				<hr/>	<hr/>	<hr/>	<hr/>
				174	113	79	366
				<hr/>	<hr/>	<hr/>	<hr/>

*Lyon Street Area.*—Considering the difficulties in obtaining alternative accommodation for displaced families, it gives great satisfaction to be able to report the final clearances of the Lyon Street Area by the demolition of eight properties containing 245 houses.

Lyon Street, along with the sites of the properties demolished, extends to 1·2 acres. The density of houses per acre was equal to 204 as contrasted with 48 per acre for the Woodside Ward and 7 per acre for the City. Persons per acre equalled 755, as against 177 per acre for the Ward and 27 per acre for the City.

Nos. 20 to 58 Lyon Street were six five-storey tenements containing 213 one-apartment, five two-apartment and one three-apartment dwellinghouses. Each of the landings gave access to eight separate dwellings occupied by a family. Two water-closets on each landing, internally situated within the property without ventilation to the atmosphere, were used in common by the eight families. The properties were in an extreme state of disrepair.

The clearance of the area has materially improved the lighting and ventilation of the dwellings bordering it by providing considerable more air-space.

The following table sets out details of properties demolished.

## PROPERTIES DEMOLISHED IN LYON STREET.

Address	Sizes of Houses					Total	Population		Total
	1	2	3	4	5		Adults	Children	
19 Lyon Street	8	6	—	—	—	14	49	15	64
20 Lyon Street	34	—	—	—	—	34	92	33	125
25 Lyon Street	4	8	—	—	—	12	32	21	53
28 Lyon Street	35	1	—	—	—	36	93	45	138
34 Lyon Street	39	—	—	—	—	39	99	33	132
42 Lyon Street	39	—	—	—	—	39	104	38	142
50 Lyon Street	38	1	—	—	—	39	117	20	137
58 Lyon Street	28	3	1	—	—	32	79	36	115
Total ...	225	19	1	—	—	245	665	241	906

*Abandoned Properties.*—Five properties abandoned by their owners since 1945 were demolished at the instigation of the Master of Works during the year. They had become so dilapidated and dangerous that there was no alternative but to rehouse the tenants and pull the properties down.

A further six properties were added to the list of those abandoned, making a total of nine properties which are occupied by tenants who are paying no rent.

The cost to the Department of keeping these properties free of serious nuisance amounted to £86 4s. 5d. They are not being maintained structurally and will ultimately require to be demolished.

*Properties offered to the Corporation.*—In the course of the year a further 24 properties containing 256 houses were offered by their owners to the Local Authority. Since 1948, 129 properties containing 1,656 houses in the Division have been offered and, of these, 29 properties containing 332 houses have been taken over. Negotiations to take over other properties 34 containing 436 houses are proceeding and 66 properties offered have been refused.

The majority of the properties taken over have been acquired free of purchase price. The deciding factor as to whether a property should be acquired is the value of the site in the future housing development of the area.

*Overcrowding.*—The operations of Part IV of the Housing (Scotland) Act, 1950, resulted in the decrowding of 1,261 houses, and involved the transfer of 6,009 units, or 6,884 persons, to larger houses.

Subsequent visits to the decrowded houses revealed that 86·52 per cent. were no longer overcrowded ; in 7·77 per cent. overcrowding was reduced ; in 2·62 per cent. overcrowding was unchanged ; and in 3·09 per cent. it had increased.

The families decrowded were taken from the list of applications in the hands of the City Factor and were accommodated in new houses or in relets in the older schemes.

Since 1935, 10,531 families in the Division have been accommodated in Corporation houses suitable for their needs.

*Housing Survey.*—The survey of residential property in the Division started in 1948, was carried a step further by the inspection of 974 properties containing 8,348 houses. The details were entered on record cards prepared for the purpose. It had been hoped that the survey of all the properties in the Division would have been completed by this time and that a comprehensive report of the results could have been given. However, due to depletion of staff, the survey has had to be suspended.

Since the survey started in 1948, details of 4,422 properties containing 37,729 houses have been recorded. This is equal to 55·4 per cent. of the dwellings in the Division.

During the year the survey of all the houses in the 15th (Woodside) Ward was completed and an analysis of the standards of housing and the degree of overcrowding found are given in the appendix tables.

The 15th (Woodside) Ward extends to 170 acres, with a population including institutions of 26,495 persons (survey census), giving densities of 155·8 persons and 44·4 houses to the acre. These densities represent the highest of any ward in the City.

The ward is predominantly residential except for a small sector to the north bounded by North Woodside Road and Callander Street. There are considerable shopping centres in New City Road, Maryhill Road, and Great Western Road, and a number of food manufacturing establishments scattered throughout.



In order to obtain a true picture of the standard of housing and of the densities, the ward has been divided into two parts—area I and area II.

Area I extends to 95 acres and is that portion of the ward west of Maryhill Road which is entirely residential with groups of the higher rented houses.

Area II extends to 75 acres and consists of that portion of the ward bounded by North Woodside Road, Trossachs Street, Garscube Road and Spiers' Wharf, and represents one of the most densely populated residential districts in the City.

Table I (Appendix) reveals that the densities of population and of houses per acre in both areas are considerably more than the gross residential densities of 18·5 houses per acre and 66 persons per acre adopted by the Corporation in 1946 for the inner zone of the City.

In area II the densities are three times as great as those adopted and indicate the obvious necessity of thinning out the population.

Of the 7,549 houses in the ward, 5,354 or 69·9 per cent. fall short of what are considered desirable houses, and of these, 721 or 9·5 per cent. are considered unfit for human habitation. It will be noted that 5,528 or 73·2 per cent. of the houses consist of one or two apartments and that the preponderance of the undesirable and unfit houses is in Area II.

Table II (Appendix) reveals that under the 1935 Standard of Overcrowding, 2,233 or 29·5 per cent. of the houses in the ward are overcrowded and that this is more marked in Area II than in Area I (40·2 per cent. as contrasted with 13·4 per cent.). By the 1944 Housing Standard, 4,323 or 54·6 per cent. of the houses are overcrowded.

Table III (Appendix) reveals that the number of families living in overcrowded conditions has been reduced by 7·6 per cent. since the survey carried out in 1935.

It is estimated that 5,354 new houses would be required to replace the unsatisfactory houses and to abate overcrowding (see Table IV in the Appendix). At the time of the 1935 survey it was estimated that 2,422 houses would be required to deal with unfit houses and overcrowding in the ward.

The survey so far as it is completed is summarised in the following table :—



## SUMMARY OF CONDITIONS FOUND BY HOUSING SURVEY.

	Popula- tion.	No. of Houses	Density Persons per Acre.	Houses per Acre.	No. of Unsatis- factory Houses.	No. of Over- crowded Houses 1935 Standard.	Percentage Reduction in Over- crowding Since 1935.
Ward 8 ... (Cowlairst)	29,201	8,170	45.3	13	4,353 53.3%	2,533 31%	10.7%
Ward 10 ... (Townhead)	37,264	9,737	123.8	32	6,381 65.5%	2,905 29.8%	7.6%
Ward 14 ... (Cowcaddens)	28,524	7,654	58.0	16	5,921 77.3%	2,895 37.8%	6.1%
Ward 15 ... (Woodside)	25,871	7,549	155.8	44	5,354 70.92%	2,233 29.5%	7.6%

## RENT RESTRICTIONS ACTS.

Much has been written and said recently about the effects of the operations of the Increase of Rent and Mortgage Interest (Restrictions) Acts on residential property. There is no doubt that the maintenance of rents at a level fixed to the economy of the 1914-1920 period is one of the principal factors in the neglect and disrepair of property. The time has arrived for a review of the Acts so far as this aspect of the problem is concerned. In such a review, care would have to be taken to see that any permitted increase in rents decided upon would be applied to the maintenance and improvement of property.

Despite the economic difficulties under which property owners are operating, only 53 applications for certificates in terms of the Acts were made during the year. Of these, 47 were refused and two withdrawn, the reason being that the disrepair complained of had been attended to before applications could be submitted to the appropriate committee.

Eight applications for reports on work having been satisfactorily completed were granted to owners.

## SUPERVISION OF REHOUSING SCHEMES.

There were 27 schemes varying in size from 12 houses to 728, built for the purpose of rehousing families from uninhabitable property between the war periods. The families rehoused presented to the authorities many problems, the chief being the inability of a number to maintain a clean home and to make the most of the facilities provided.

Nurse-Inspectresses attached to the Division were given the task of guiding and encouraging the tenants to make the best use of the houses. The task assigned to the nurses was difficult and at times almost heart-breaking, but with the passing of the years they have been rewarded by seeing many of the original householders and their children with homes of their own keeping the houses in a manner that would be a credit to anyone.

Some of the tenants have been transferred to Intermediate and Ordinary Schemes where there is no supervision.

During 1951, 25,957 visits were made to the 5,247 houses in the various rehousing schemes. On 15,843 occasions houses were found to be satisfactory, on 10,069 occasions they were found to be fair, and only on 45 occasions were houses found dirty.

At the request of the City Factor's Department, 1,104 visits were made to houses in Intermediate Schemes. The great majority were found to be satisfactory, and only three houses were found to be dirty when appropriate action was taken.

Reports on 342 applications by tenants for transfer to houses outwith rehousing schemes were prepared and submitted to the City Factor. Three hundred and thirty-eight of the applicants were found suitable for transfer.

#### INSPECTION OF SCHOOL CHILDREN.

The Nurse-Inspectresses are responsible for the examination of children for vermin and dirt in thirty schools within the Division. The schools were visited on 354 occasions and 18,767 boys and 16,592 girls were examined.

Boys found infested (pediculus capitis) ... ..	8
Boys found infected (nits only) ... ..	3,377
Girls found infested (pediculus capitis) ... ..	11
Girls found infected (nits only) ... ..	6,465

There were 95 boys and 46 girls found with fleas and 202 boys and 32 girls were found dirty in body and in clothing. The parents or guardians of children found verminous or dirty were asked to take immediate steps to deal with the condition. The homes of children where no improvement was obtained were visited on 1,992 occasions and the parents firmly dealt with.

## SANITARY CONVENIENCES.

The following table shows the distribution of water-closets used in common by more than one family :—

## WATER-CLOSETS USED IN COMMON.

Wards.	Common to—				Total
	2 tenants.	3 tenants.	4 tenants.	5+ tenants.	
8	395	868	247	18	1,528
9	199	477	111	15	802
10	442	655	395	83	1,575
14	371	929	318	91	1,709
15	180	741	272	129	1,322
16	129	232	130	5	496
17	88	902	171	18	1,179
18	144	532	109	8	793
Totals ...	<u>1,948</u>	<u>5,336</u>	<u>1,753</u>	<u>367</u>	<u>9,404</u>

There are 43 dry closets, including chemical closets, in use in the Division.

There are no privy middens.

Thirty-two houses are still without an internal water supply.

JOHN D. ARTON,  
DIVISIONAL SANITARY INSPECTOR.

## APPENDIX.

TABLE I.

DENSITIES, CLASSIFICATION AND SIZES OF HOUSES IN 15TH (WOODSIDE) WARD.

Area.	Acre- age.	Population.		Persons per Acre.	Houses per Acre.	Classification of Houses.				Sizes of Houses in Apartments.					Total Number of Houses.
						Stan- dard.	Sub- dard A.	Sub- dard B.	Unfit.	1	2	3	4	5+	
I	95	10,167	56	107.6	31.4	667 22.4%	878 29.5%	1,434 48.1%	1	191	1,231	811	336	411	2,980
II	75	15,704	568	217.0	60.9	93 2.4%	557 12.2%	3,199 70.1%	720 15.3%	1,057	3,049	432	27	4	4,569
Total Ward	170	25,871	624	155.8	44.4	760 10.1%	1,435 19.0%	4,633 61.4%	721 9.5%	1,248	4,280	1,243	363	415	7,549

APPENDIX.

TABLE II.

NUMBER OF HOUSES OVERCROWDED IN 15TH (WOODSIDE) WARD.

Number of Houses Overcrowded according to 1935 Standard.										Number of Houses Overcrowded according to 1944 Standard.										Degree of Overcrowding in Units according to 1935 Standard.														
Area.	Apartments.							Per-cent-age	Apartments.							Per-cent-age																		
	1	2	3	4	5+	Total	1		2	3	4	5+	Total	1	1½		2	2½	3	3½	4	4½	5	5½	6	6½	7	7½						
I	65	280	25	3	25	398	13.4	191	659	114	17	35	1,016	34.1	119	139	47	46	12	11	7	7	3	4	—	—	1	2						
II	541	1,227	67	—	—	1,835	40.2	1,057	2,116	132	2	—	3,307	72.4	461	568	219	212	94	113	63	38	23	22	6	10	2	3	1					
Totals	606	1,507	92	3	25	2,233	29.5	1,248	2,775	246	19	35	4,323	54.6	580	707	266	258	106	124	70	45	26	26	6	10	2	4	3					



**APPENDIX.**  
**TABLE III.**  
 COMPARISON OF OVERCROWDING AS SHOWN BY 1935 AND 1951 SURVEYS IN 15TH (WOODSIDE) WARD.

Survey Year	Population.		Persons per Acre.	Houses per Acre.	No. of Houses	Size of House in Apartments.					Number of Houses Overcrowded (1935 Standard).							Degree of Overcrowding in Units.															
						12345+					Apartments.																						
	12345+Total %																																
1935	170	31,220	887	184.8	46.3	7,879	1,937	4,371	1,132	343	96	838	1,863	206	18	1	2,926	37.1	591	913	312	432	179	195	103	86	46	27	17	4	3	1	—
1951	170	25,871	624	155.8	44.4	7,549	1,248	4,280	1,243	363	415	606	1,507	92	3	25	2,233	29.5	580	707	268	258	106	124	70	45	26	26	6	10	2	4	3

Since 1935 there has been a net decrease of 330 houses in the ward under consideration, 472 houses having been closed and/or demolished and 142 added by new buildings and sub-division of existing houses.

## APPENDIX.

TABLE IV.

## SUMMARY—15TH (WOODSIDE) WARD.

Area I.													Area II.													Totals.		
Apartments.						Apartments.						Apartments.						Apartments.						Total.				
1	2	3	4	5+	Total.	1	2	3	4	5+	Total.	1	2	3	4	5+	Total.	1	2	3	4	5+	Total.					
<i>Houses Surveyed—</i>																												
Standard	—	36	105	164	362	667	—	9	78	5	93	—	45	183	169	363	760	—	—	—	—	—	—					
Sub-Standard "A"	3	280	410	142	43	878	2	432	115	7	557	5	712	525	149	44	1,435	5	712	525	149	44	1,435					
Sub-Standard "B" (unsatisfactory houses)	188	914	296	30	6	1,434	739	2,230	215	13	2	3,199	927	3,144	511	43	8	4,633	927	3,144	511	43	8					
Unfit (unsatisfactory houses)	—	1	—	—	—	1	316	378	24	2	720	316	379	24	2	—	721	316	379	24	2	—	721					
	191	1,231	811	336	411	2,980	1,057	3,049	432	27	4	4,569	1,248	4,280	1,243	363	415	7,549	1,248	4,280	1,243	363	415					
<i>Houses Overcrowded (1935 Standard)—</i>																												
Standard	—	2	—	1	15	18	—	3	24	—	27	—	5	24	1	15	45	—	—	—	—	—	—					
Sub-Standard "A"	2	54	11	2	10	79	1	130	8	—	139	3	184	19	2	10	218	3	184	19	2	10	218					
Sub-Standard "B" (unsatisfactory houses)	63	223	14	—	—	300	353	891	25	—	1,269	416	1,114	39	—	—	1,569	416	1,114	39	—	—	1,569					
Unfit (unsatisfactory houses)	—	1	—	—	—	1	187	203	10	—	400	187	204	10	—	—	401	187	204	10	—	—	401					
	65	280	25	3	25	398	541	1,227	67	—	1,835	606	1,507	92	3	25	2,233	606	1,507	92	3	25	2,233					
<i>Houses Overcrowded (1944 Standard)—</i>																												
Standard	—	9	7	9	21	46	—	5	39	1	45	—	14	46	10	21	91	—	—	—	—	—	—					
Sub-Standard "A"	3	138	51	6	14	212	2	284	21	—	307	5	422	72	6	14	519	5	422	72	6	14	519					
Sub-Standard "B" (unsatisfactory houses)	188	511	56	2	—	757	739	1,541	58	1	2,339	927	2,052	114	3	—	3,096	927	2,052	114	3	—	3,096					
Unfit (unsatisfactory houses)	—	1	—	—	—	1	316	286	14	—	616	316	287	14	—	—	617	316	287	14	—	—	617					
	191	659	114	17	35	1,016	1,057	2,116	132	2	3,307	1,248	2,775	246	19	35	4,323	1,248	2,775	246	19	35	4,323					
Houses required to rehouse tenants of unsatisfactory houses and to abate over-crowding—																												
(1935 Standard)	...	...	...	...	...	1,532	...	...	...	...	4,085	...	...	...	...	...	5,617	...	...	...	...	...	5,617					
(1944 Standard)	...	...	...	...	...	1,693	...	...	...	...	4,271	...	...	...	...	...	5,964	...	...	...	...	...	5,964					
Number of houses rendered vacant by decrowding—																												
(1935 Standard)	...	...	...	...	...	97	...	...	...	...	166	...	...	...	...	...	263	...	...	...	...	...	263					
(1944 Standard)	...	...	...	...	...	258	...	...	...	...	352	...	...	...	...	...	610	...	...	...	...	...	610					
Net number of new houses required																												
	...	...	...	...	...	1,435	...	...	...	...	3,919	...	...	...	...	...	5,354	...	...	...	...	...	5,354					
Conditions after rehousing and demolition of unsatisfactory houses—																												
Net number of houses remaining in Ward	...	...	...	...	...	1,545	...	...	...	...	650	...	...	...	...	...	2,195	...	...	...	...	...	2,195					
Number of houses per Acre	...	...	...	...	...	16.3	...	...	...	...	8.6	...	...	...	...	...	12.9	...	...	...	...	...	12.9					
Estimated Number of Persons in Ward	...	...	...	...	...	10,684	...	...	...	...	3,827	...	...	...	...	...	14,511	...	...	...	...	...	14,511					
Estimated Number of Persons per Acre	...	...	...	...	...	112.5	...	...	...	...	51.02	...	...	...	...	...	85.4	...	...	...	...	...	85.4					

## EASTERN DIVISION.

It should always be kept in mind that the principal duty of a sanitary inspector is to improve the environmental conditions in his area. His purpose should be to advise and to assist in every way, and only as a last resort should he interest himself in obtaining a conviction for an offence.

Visits with regard to nuisances were again very numerous, totalling 109,459 during the year. The number of nuisances removed was 10,198, a figure little different from previous years. Statutory notices were served in respect of 25 cases where the work was not being carried out within a reasonable time. In 21 of these the work was completed before legal proceedings commenced, and in the remaining four cases court proceedings are pending. Full details of the number and type of nuisance have been included in Table XVII of the Appendix.

Inspections were carried out in respect of 220 water storage cisterns and notices served in 61 cases where the cistern was found to be defective or dirty. All these notices were promptly complied with.

The supervision of streams and waterways in the Division was continued, and it is most satisfactory to report that the work carried out for the treatment of effluents from piggeries continues to give complete satisfaction. The efficiency of the altered plants has now been fully tested, and there has been no complaint of pollution during the past year.

*Cleansing of Common Stairs and Passages.*—Failure to cleanse the common stairs and passages is a frequent cause of dispute in many tenement properties. Often the complaints are quite unfounded, and a close investigation leads one to the conclusion that many of the complaints are instigated by a desire for revenge for some other injustice either real or imagined. As it is, of course, impossible to know in advance which complaints are genuine, a good deal of time is spent in investigating these matters. Unfortunately, even when a genuine case of non-compliance with the Bye-laws is encountered and the case goes to court, the penalties imposed are so lenient that they do not act as deterrents for future cases. Frequently the accused is admonished and the work of the inspector in building up a case and stating the evidence has been of little effect.

Some years ago when cases were taken to court and proved fines of upwards of £1 were imposed, such penalties were found to have a salutary effect on the tenants in the neighbourhood. In recent years, however, more and more cases are dismissed with admonitions resulting in a feeling amongst certain people that the Bye-laws can be ignored with impunity. In the only case taken to court this year for failing to wash and cleanse the close or stairs the accused was admonished.

*Drainage.*—Testing drainage systems of old properties is not carried out now to the same extent as was done in pre-war years. Only five first tests were applied during the year, of which four were found to show defects. The high ratio of defective systems shows that the discontinuance of this system is not due to any improvement in maintenance repairs.

Since prevention is better than cure, it is unfortunate that we cannot return to former conditions. Smoke-testing of old property drainage systems is not by any means a severe test but it does show defects and their location, and in innumerable cases shows them before the defects have caused public health nuisances.

The possibility of the spread of diphtheria by the water-carriage system was, of course, exploded many years ago, but it served an excellent excuse for testing the drains. Now that the incidence of diphtheria has fallen to such low figures, some other reasons for testing should be found even if it means the introduction of a time-limit—for instance, the granting of legal powers to local authorities to test the drainage systems of all properties which had not been tested within the last five years.

During the year there were 2,384 visits in connection with drainage schemes, and the total number of tests applied was 342.

*Rent Restrictions Acts.*—Of 40 applications for certificates in terms of the Rent and Mortgage Interest Restrictions Acts, 20 were granted, 15 refused, as the work was completed by the factor within a reasonable time, and 5 applications were withdrawn.

*Housing.*—There were 143 new houses built in the Division during the year, but, although this continues the downward curve meantime, the number of new sites being prepared and the number of schemes already in hand would indicate that the curve should soon show an

upward tendency. In addition to the new houses, two conversions took place—one 10-apartment house was converted into two 5-apartment houses, and one 7-apartment house was converted into two 3-apartment houses. One 5-apartment house was completely re-conditioned.

Families rehoused on account of overcrowding reached a total of 818, and the incoming families to the vacated houses caused overcrowding in 141 cases. This gives a figure of 17·24 per cent. of houses again overcrowded, compared with 15·48 per cent. last year.

Only six houses were dealt with in terms of Section 9 of the Housing (Scotland) Act, 1950, and it is very unfortunate indeed to have to return this low figure. However, a determined attack on old properties cannot be made until there is a decided increase in the number of houses being built.

*Offensive Trades.*—There were five alterations in the offensive trades businesses, comprising the addition of one tripe boiler and the discontinuance of one skin and hide factor, 1 soap boiler and 2 tallow melters. The number of businesses on the register is now 39 and is made up as follows :—

Blood Boiler	...	...	1	Manure Manufacturers	...	3	
Bone Boilers	...	...	6	Soap Boilers	...	...	2
Glue and Size Maker	...	1	Tallow Melters	...	...	12	
Gut Cleaners	...	...	3	Tanners	...	...	8
Hide and Skin Factors	...	2	Tripe Boilers	...	...	1	

Despite continued encroachment of dwelling-houses on the area of a concentration of offensive trades, few complaints have been received. The premises, of course, are regularly visited by the inspectors and every effort is made to ensure that nuisances are removed without delay. The degree of co-operation received from the owners in these matters is worthy of mention, and certainly leads to great harmony in matters which could readily give rise to difficulties. The fostering of good public relations nowhere gives greater evidence of its effectiveness than in this field. During the year 229 visits were made by the



inspectors and 37 nuisances were discovered. All nuisances were removed immediately on being brought to the notice of the owners and no further action was necessary.

*Common Lodging Houses.*—The only change in the lodging houses in the Division was that the Boarding House for Indian Seamen was closed by the owners, the Mission to Seamen's Trust Corporation, Ltd. The other lodging houses remain as in previous years, namely, five houses for males and two for females. Of these, two houses for males and one for females are owned by the Corporation of Glasgow, and the remainder are privately owned. The closing of the Indian Seamen's Boarding House resulted in the number of lodging house beds in the Division being reduced to 2,220.

Regular inspection of these premises is essential and for this purpose 337 visits were made by the assistant inspectors. Only five nuisances were discovered, all of which were rectified as soon as the keeper was informed. This high state of efficiency is undoubtedly due to regular supervision and the knowledge that no contraventions of the bye-laws will be permitted to continue.

*Farmed-out Houses.*—Visits by inspectors to the 98 farmed-out houses numbered 331. Fourteen items of disrepair were found and were duly attended to. Experiences in the past have shown that nuisances in these houses are always promptly attended to after being brought to the notice of the owners.

*Piggeries.*—Three piggeries were removed from the register, and two new piggeries were opened after being duly inspected and reported as suitable, thus bringing the total number of piggeries on the register to 23. Routine visits totalled 260, and in the course of these inspections 33 nuisances or contraventions of the bye-laws were notified to the owners. Where this type of business is carried on near an area of dwelling-houses, extra supervision is required on the part of the inspector. Few complaints were received during the year and where recommendations for alterations were put forward they were well received by the owners concerned, with the exception of one case.

One piggery owner failed to provide a dungstead, and although requested to do so on numerous occasions, there was still no evidence

of the work being started when he applied for renewal of his licence. Consequently, the licence was withheld and the owner requested to comply with the bye-laws. As still no action was taken the Magistrates finally informed the owner that unless the bye-laws were complied with he would be required to discontinue using the premises as a piggery. This condition was eventually complied with and the licence renewed.

*Sanitary Conveniences used in Common.*—Owing to the small number of houses dealt with in terms of the Housing (Scotland) Acts and to the low number of condemnations by the Master of Works' Department, alterations to the number of w.c.'s used in common have been few.

There are 9,452 water-closets used in common, 53 dry closets and one privy midden. The number of houses without inside sink and water supply is unchanged at 65. Two ashpits have been removed and there are now 19 ashpits serving tenants.

The septic tanks in use number 92, and although mainly situated in semi-rural areas, they receive regular and frequent visits to ensure that no nuisance is allowed to continue.

The number of dwelling-houses within the Division at 31st December, 1951, was 61,410, of which 25,300 are houses with inside bath and w.c. accommodation. This represents 41·19 per cent. of the total, which is a very slight increase over last year's figure of 41·04 per cent.

*Factories and Shops.*—Relations between factory owners and occupiers were maintained on such good terms that although 341 nuisances were discovered their abatement or removal gave no cause for resort to legal proceedings. Some of the nuisances necessitated improved lighting and ventilation of sanitary conveniences; others were concerned with dirty conditions, accumulation of rubbish or stagnant water or defective plumbing. In all, 3,115 visits were made.

The total number of factories in the Division at 31st December, 1951, was 1,058. Details are given in the following table :—

			Factories.		
			Mechanical.	Non-Mechanical.	Bakehouses.
New ...	...	...	62	7	7
Total ...	...	...	841	128	89

Visits to shops numbered 185, and the number of nuisances remedied or abated was 43.

*Rat Infestation.*—Rodent extermination was continued throughout the year with very similar kills as in previous years. As more and more premises are being rat-proofed the natural harbourage is diminished and large colonies of rats become fewer.

Visits to rat-infested premises were 3,860, and the number of rodents killed were—rats, 2,946 ; mice, 463.

The number of premises showing evidence of rodent infestation and treated was as follows :—

Dwelling-houses	...	...	...	86
Food premises	...	...	...	37
Other premises	...	...	...	114
Total	...	...	...	237

The number of premises rendered rat-proof during the year was 132.

*Tents, Vans and Sheds.*—There are now four permanent sites permitted for the parking of vans, etc., for human habitation, and about 60 vans are in use at any one time. A great deal of movement takes place among the members of this group owing to showmen touring the country during the periods of local fairs. The main site is at Vinegarhill, and the others are small fields housing only one or two vans each. A great deal of supervision is necessary over the sites and 342 visits were made during the year, indicating that the sites are visited almost daily. The number of nuisances found amounted to only nine, but there is no doubt that this low number is due almost entirely to strict and frequent supervision.

*Rag Flock.*—New legislation controlling the use of clean filling materials in upholstered articles and in other articles which are stuffed and lined came into operation on 1st November, 1951, with the Rag Flock and Other Filling Materials Act, 1951, and associated Regulations.

Important new aspects of control are the registration of upholstery premises and the licensing of rag flock manufacturers and premises where rag flock is stored. Further points brought within the scope of the Sanitary Inspector include responsibility for ensuring that proper and appropriate records are maintained of all rag flock entering and leaving such premises, and, in the case of upholstery repair services, a record of all second-hand articles containing filling materials received at the premises.

As the enactments are quite lucid and straight-forward and as recent interviews with members of the trades concerned have been carried out in a co-operative atmosphere, it is not expected that many difficulties will be experienced in the administration of the Act.

Premises registered under the Act	...	...	...	...	16
Premises licensed as manufacturers under the Act	...	...	...	...	1
Premises licensed as storage premises under the Act	...	...	...	...	2
Total premises administered					19

*Squatter Families.*—The number of squatter families is being steadily reduced as the result of the vigilance of the assistant inspectors in causing all condemned houses to be rendered uninhabitable by the removal of door frames, window frames, sink and water supplies, etc. The figure is now 22 families compared with 36 last year.

The condemned property at 7 Largs Street presents the greatest problem, but as squatter families move out action is taken to prevent other squatter families from taking up residence. Nuisances arising in and around the property are dealt with as quickly as possible, but the property is so dilapidated that only the removal of the squatters and its demolition would provide a satisfactory solution.

*Nurse Inspectors.*—Supervisory control of all rehousing scheme houses was maintained by the Nurse Inspectors. Primary visits to rehousing scheme houses reached a total of 39,229 and revealed 1,070 dirty houses—334 with dirty bedding and 41 showing evidence of the presence of bed bugs. There were 1,655 re-visits paid to ensure that earlier unsatisfactory conditions had been improved, and all vermin-infested houses were treated with D.D.T. preparations.

There were 1,004 visits made to intermediate scheme houses, revealing dirty conditions and/or vermin infestation in 106 cases. Re-visits were carried out until satisfactory conditions were obtained.

In the supervision of school children 387 visits were made to schools and 31,827 children were examined for evidence of body vermin. The numbers found infested were 41 boys and 200 girls. Follow-up visits were made to the homes of the children not kept in a satisfactory condition, especially those found to be infested with vermin.

There is no doubt that the nurse inspectors' interviews with parents are most beneficial. The nurses have shown considerable initiative and tact in dealing with these difficult cases and have succeeded in effecting considerable improvements.

*Elderly Persons.*—Sanitary inspectors are now consulted much more frequently with regard to the problems of old people than in previous years. Sanitary problems of elderly persons living alone and in an advanced state of senility or suffering from chronic illness are constantly being brought to the notice of the Department. Sometimes the sanitary inspector must interest himself in obtaining the removal of the patient to hospital. At other times he may give compassionate washings to assist relatives and friends who are caring for the old person. Occasionally it has been found necessary to insist on removal to hospital by application to the Sheriff. Vermin infestation of the houses of persons living alone is fairly frequent, and in these cases arrangements are made to have the houses cleaned, the bed and bedding and body clothes taken away and washed, and the house itself treated with D.D.T. for the destruction of vermin. This work among the old and frail necessitates constant co-operation of the sanitary inspector, the health visitor, the home help section and the welfare officers attached to the Department.

ALEXANDER EASTON,  
DIVISIONAL SANITARY INSPECTOR.



## SOUTH-EASTERN DIVISION.

The maintenance of the Division in a proper sanitary condition is becoming more difficult each year. This is largely the result of unremunerative returns from tenement property and the high maintenance costs. Even choked property drains do not to-day receive the prompt attention given in pre-war years. Properties which have reached the stage of deterioration are a liability, and owners are financially incapable of meeting the continued costs of essential repairs however willing they may be to carry out the work.

The threat of legal proceedings does not expedite the work of repair. In fact, some owners welcome court action when major work is required in the hope that the Corporation may be authorised to carry out the necessary repairs. The legal view is that it is a waste of time and money to institute court action against an owner with no funds to meet the cost of removal of nuisances. Frequent nuisances occur in property of the tenement class and often stalemate is reached. It is not always easy to decide between the saving of public money to the discomfort of a section of the community and the removal of nuisances by public money with little prospect of reimbursement.

The recovery of money expended for work carried out by the Corporation in removing nuisances in private property, even when authorised by the court, is not always successful. Recourse to poinding goods and chattels is sometimes undertaken, but this inflicts hardship on others. While the arrestment of rents to the extent of the liability is a possible solution, it is not looked on with favour owing to legal difficulties so in many cases the money is never recovered.

Many and varied are the duties carried out by the sanitary inspectors of a large industrial city. Irregularities or breaches of statutes are often found during routine inspections. Many complaints, however, are brought to the notice of the Department by direct approach, such as by letter, telephone or personal call. Sometimes the informants prefer to remain anonymous, making investigation somewhat more difficult.

Although no complaints of an outstanding nature occurred during the year, two are worthy of mention if for no other reason than the amount of time and thought given to their solution. Each referred to complaint of noise from machinery in nearby business premises.

In the first instance the complaint referred to noise and vibration from a refrigeration plant in a refreshment cafe beneath the complainer's house which prevented the occupants from enjoying their normal rest and sleep. The refrigeration plant was driven by a  $\frac{1}{2}$  h.p. motor attached by metal brackets to a supporting column in the basement of the shop. Following consultation with a firm of refrigerating engineers, it was decided to mount the machine on rubber bands. This, however, did not satisfy the complainer, and the machine was then removed to a different position and mounted on a platform to prevent impact noises being felt. Following this several observations were taken over periods up to one-and-a-half hours around midnight by the Department's inspectors who found that, while an indistinct humming noise was heard at times, for all practical purposes the nuisance had been removed.

In the second instance the complaint was of noise from machinery and processes carried on in a sculptor's yard adjacent to a row of terraced houses. The motive power was obtained from a 45 h.p. oil-driven engine and compressor, the noise from which was perceptible over a considerable distance. During the period of complaint the firm changed over from oil to electrically-driven machinery. This change slightly lessened the degree of impact noise and vibration but the accumulative effect of noise from all processes remained considerable.

An approach was made to the firm who readily agreed to do all in their power to assist, and acting on the advice of a firm of consulting engineers the walls of the machine and sawing sheds were lined with felt; a new brick wall was built adjoining one complainer's house; and all windows and other openings in the sheds to the complainer's side were sealed. The difference was marked. The complainers expressed satisfaction with the considerable reduction in noise, which, although still perceptible, was no longer intolerable.

In connection with the abatement of nuisances, a total of 66,783 visits were made during the year, resulting in the issue of 8,199 intimations, of which number 6,986 were removed by the 31st December. It was necessary to issue 78 statutory notices to defaulting authors of nuisances and proprietors of property. In five instances, action in the Sheriff Court followed non-compliance. Three cases referred to choked drains, one to a defective roof, and the other to a defective roof and decayed wood floor. All were successfully contested, with expenses to the Corporation. The work to remove two of the nuisances was carried out by the Corporation by court order.

The variety, numbers and distribution of the complaints received during the year is shown by the following analysis :—

Complaints.	Municipal Wards.										Total
	26	25	33				33			34	
			35	35	33	36	36	37			
			36	36	34	37	37				
Districts.											
	1	2	3	4	5	6	7	8	9	10	
Choked drains and flooding ...	66	52	61	65	41	33	32	27	19	13	409
“ Please call ” :											
General subjects	22	19	22	26	24	28	30	18	5	14	208
Offensive smells ...	13	16	15	8	8	17	4	5	5	3	94
Defective woodwork :											
Sinks and floors	1	2	9	10	7	6	4	2	2	—	43
Dampness : Roofs, gutters, etc. ...	46	31	50	48	32	36	30	24	17	9	323
Dirty stairs and closes ...	53	49	62	32	23	41	9	22	8	10	309
Vermin : Bugs, wood-worm, flies, snails	30	20	28	47	22	18	11	5	3	7	191
Animals : Dogs, cats, birds ...	1	5	2	1	2	2	2	5	2	4	26
Police : Food in Court, shaking mats, etc. ...	1	—	—	2	1	—	—	—	—	—	4
Defective windows	—	1	6	8	—	10	1	3	2	—	31
Noise ...	—	4	—	—	—	—	—	1	—	—	5
Fittings : Burst pipes, w.c. cisterns ...	72	57	100	95	35	24	19	16	23	5	446
Smoke pollution ...	31	28	30	29	11	16	15	12	7	5	184
Limewashing ...	8	6	2	5	5	12	8	4	—	1	51
“ Please Report ” :											
M.O.H., Councillors	21	20	49	34	6	10	4	4	5	6	159
Dirty houses ...	3	1	2	4	2	9	—	—	—	2	23
Dog bites ...	4	4	10	9	9	5	6	6	2	6	61
Rat and mice infestation ...	183	199	132	95	42	44	49	43	17	45	849
	555	514	580	518	270	311	224	197	117	130	3,416

*Rent Restrictions Acts.*—61 applications for certificates by tenants of dwelling-houses in respect of not being in a reasonable state of repair were received. 10 were granted, 39 refused, the work stated being completed, and 8 withdrawn. Four applications were continued to 1952. Requests were received in three instances from landlords for reports that the work had been carried out. One was refused as no action had been taken to remedy the defects.

*Rodent Control.*—The war against rodents was maintained throughout the year. As in former years the majority of infestations were in dwelling-house property, particularly in the congested areas where an abundant food supply is always available. It is not always easy to estimate the extent of an infestation, and a considerable time may have to be spent by the inspector on surveying the premises if the most advantageous and economical use is to be made of the operators' services. This is not always appreciated.

The refresher course arranged by the Department of Agriculture for Scotland towards the end of the year was of inestimable value in this respect. A great deal was learned of new poisons and methods of extermination during the lectures and practical field demonstrations.

848 complaints of infestation were made direct to the Department during the year, arising from which surveys were made of premises in the block of the infested properties. A total of 9,882 visits were made in this connection. The year's operations are summarised in the following table :—

Premises			RATS			MICE			Number of Premises Proofed	
			Trapped	Poisoned	Gassed	Total Kill	Infestations Treated	Infestations Treated		Total Kill
Dwelling-houses	...		1,558	—	—	1,558	514	90	244	216
Basement and Out-houses	...	...	146	1,126	20	1,292	204	—	—	24
Shops	...	...	159	10	—	169	41	5	7	27
Food Premises	...		268	—	—	268	27	7	40	12
Business Premises	...		30	4	—	34	23	11	51	11
Other Premises	...		174	263	61	498	28	10	43	13
Sewers	...	...	—	162	—	162	2	—	—	1
Stables	...	...	22	—	—	22	2	—	—	2
Total	...		2,357	1,565	81	4,003	841	123	385	306

*Business Premises.*—Visits of inspection were regularly maintained during the year. 184 intimations of defects were notified and remedied, all of which were of a minor character. 791 visits were made to catering establishments with a view to improving standards of hygiene. Not all of these establishments are factories in terms of the Act and are not, therefore, subject to the health and welfare provisions.



It was not necessary to take proceedings against any of the proprietors although many businesses were carried on under far from ideal conditions. Advice was given to them on improved standards of cleanliness and the handling and storage of food. The advice was readily accepted. Nearly all the proprietors co-operated by permitting members of their staffs time off to view the film "Another Case of Poisoning," arranged by the Department of Health for Scotland.

The divisional register of factories in terms of the Factories Acts and a Public Health (Scotland) Act is as follows :—

Ward.	Factories Acts, 1937 and 1948.								Public Health (Scotland) Act, 1897.					
	No. on Register as at 31.12.51.				New Registrations 1951.				Removals 1951.				Catering Establishments.	
	Factories.		Bakehouses.		Factories.		Bakehouses.		Factories.		Bakehouses.		Tot. Regs.	
	M.	N.M.	M.	N.M.	M.	N.M.	M.	N.M.	M.	N.M.	M.	N.M.	Tot.	Reg.
25	57	4	8	8	6	—	—	—	2	—	—	—	17	—
26	215	47	21	6	10	1	—	—	11	3	1	—	42	—
33	51	15	8	3	1	—	—	—	3	—	—	—	4	—
34	84	7	5	4	—	—	—	—	—	—	—	—	8	—
35	49	6	7	1	—	—	—	—	1	—	—	—	15	—
36	22	8	6	1	—	—	—	—	—	—	—	—	6	1
37	39	2	5	1	—	1	—	—	1	1	—	—	5	—
	517	89	60	24	17	2	—	—	18	4	1	—	97	1
													147	8

\* One addition.

*Housing Scheme Visitation.*—The intermediate and rehousing schemes were kept under supervision by the nurse inspectors. In the former type, 231 visits were made when 4 were found to be dirty and 45 were classed as "fair." In the latter type, 3,858 visits were made, during which 11 were found to be dirty and 448 classed as "fair." Notices in terms of the Glasgow Police Acts had to be served on two persistent offenders, but recourse to further action was unnecessary.

*House-to-House Visitation.*—742 visits were made to houses throughout the Division where unsatisfactory conditions existed or were believed to exist. As in former years, many of these were to the homes of aged people who through infirmity were unable to carry out domestic duties. Some were permanently bedridden. On 13 occasions houses were cleaned by the Department's cleaners, following the temporary removal of the tenant to Foresthall or to the care of neighbours. Periodic compassionate washings were given to 17 deserving cases.



*School Visitation.*—133 visits were made to schools during the year when out of a total of 12,584 children examined 209 were found to be severely infested with head or body lice and 1,372 were infested to a lesser degree. 40 children were infested with fleas and the persons and clothing of 306 were found to be dirty. 374 visits were made to the homes of the infested children with a view to an improvement being effected.

*Piggeries.*—There are seven licensed piggeries, one less than last year. All are maintained in a satisfactory condition and are visited regularly.

*Limewashing of Closes and Staircases.*—In this connection 4,913 visits were made resulting in the issue of 1,004 notices to cleanse. On subsequent visitations 618 were found to have been cleaned, the remainder being carried forward to 1952.

*Rag Flock and other Filling Materials Act, 1951.*—This Act came into operation in November, 1951. While certain provisions are new and licensing of manufacturers and storers of rag flock and registration of users of filling materials are now compulsory, no revolutionary changes are envisaged. The premises likely to come within the scope of the Act, numbering 44, were circularised, but by the end of the year only three applications for licence and 17 applications for registration had been received. An investigation into the remaining premises is being made.

*Rehousing.*—In connection with the removal from old to new houses 1,092 visits were made. It was found necessary to call on the D.D.T. unit to treat 72 houses for bug infestation prior to the removal of the family to new premises. This did not entail any delay as all the infestations were slight.

WILLIAM RAE,  
*Divisional Sanitary Inspector.*

## SOUTH-WESTERN DIVISION.

Sanitary conditions in the Division were normal during the year, and once again the chief problems encountered by the inspectors were due to the increasing number of abandoned and dangerous properties and the growing disrepair in old tenement buildings.

*Nuisances.*—There is no branch of the work which absorbs more time and attention than does the detection and removal of nuisances. In the year under review a total of 98,554 inspections were made for this purpose and 11,880 nuisances were removed. As usual, the greater proportion were choked or defective drains and sanitary fittings.

Owing to 'steady deterioration of the older tenemental areas repair work involving reslating of entire roofs is undertaken only under heavy pressure or following Court proceedings. The increasing necessity to seek authority to issue statutory Section 20 notices is further proof of the reluctance of owners to effect certain types of repairs. During the year it was necessary to serve Section 20 notices on 10 occasions and institute Court proceedings in 3 cases. The Sheriff in these instances gave the owners a stated time to have the nuisances remedied. Workmen were engaged on the necessary repairs as the year closed. The heavy storm damage late in the year has left many problems for property owners and for this Department.

*Drainage.*—The decline of house building in the Division caused a decrease in the number of visits to 2,816 ; the number of tests applied was 377.

Mention was made last year to the changes in plumbing practice, many being actually contrary to the Bye-laws. It would be much more satisfactory if new model Bye-laws on this subject were introduced rather than to leave responsibility for accepting some of the recent plumbing designs to the inspector.

*Rent Restriction Act.*—Under these Acts 29 applications were made by tenants for certificates, of which 12 were granted, 12 refused and 5 withdrawn. Owners lodged 22 applications for reports which, after investigation, were granted, the work done being satisfactory.

*Limewashing, etc., of Common Passages, Stairs and Water-Closets.*—

This branch of the work entailed 7,261 inspections and altogether the closes and staircases of 1,038 properties were cleansed, 537 following a notice under the Police Acts and the remainder voluntarily by the proprietors concerned.

*Common Stairs.*—A great deal of the inspectors' time continues to be taken up with this work, as is shown by the fact that 4,515 visits were made in this connection and that 784 cards and 123 verbal warnings were given to tenants informing them of the dates on which they were responsible for this particular duty. It was necessary to institute proceedings in one case which was successful, and the tenant after a probationary period of two months was admonished by the Procurator Fiscal.

*Factories Act, 1937.*—Since the inauguration of the Public Health Service in Glasgow the staff attached to the South-Western Division has been actively concerned with problems in connection with factories. Few developments of modern civilization have been so satisfactory to the health and wellbeing of the citizen as the steady evolution of factory legislation. During the past fifteen years the interest taken by the Local Authority in factory inspection has steadily increased, and the management of many large premises continually seek advice on such matters as ventilation, heating, lighting and the abatement of noise.

Industrial hygiene is an essential part of public health work, and the importance of visits made by the sanitary inspector to improve and maintain a high standard cannot be over estimated. The majority of workers are appreciative of the improved sanitary conveniences existing in modern factories, but it is to be regretted that vandalism is still the cause of many serious nuisance conditions in sanitary conveniences, especially in the larger type of factory.

The total number of factories registered in the Division is 820, of which 696 have mechanical power. Inspections totalled 1,816 and resulted in occupiers being notified of 515 defaults in varying character under the Act. In most cases the defects were speedily remedied, and delay was experienced only when new fittings demanding alterations were made.

The undernoted table shows the factories in the Division with the number of employees.

Group Employees	Mechanical		Non- Mechanical		Total	
	Factories	Population	Factories	Population	Factories	Population
Under 5 ...	251	645	89	199	340	884
5-9 ...	130	853	19	130	149	983
10-19 ...	100	1,380	9	115	109	1,495
20-49 ...	102	3,034	4	100	106	3,134
50-99 ...	46	3,038	—	—	46	3,038
100+ ...	67	36,656	3	817	70	37,473
Total ...	696	45,606	124	1,361	820	46,967

*Stables, Dung Pits, etc.—Fly Nuisance.*—During the past few years there has been a steady decline in the number of stables and dungpits. and regular visitation ensures that the manure heaps are kept within reasonable proportions. Periodic spraying of the dungpits is carried out by the Local Authority in an effort to reduce the risk of flies spreading intestinal diseases. The importance of this measure can readily be understood when it is estimated that a female fly deposits her eggs in batches of up to 150 at a time and these are capable of producing over 500,000 flies in less than two months.

Only a few complaints were made during the year of communal brock bins supplied by the Local Authority being a source of fly nuisance. No doubt that is due to the fact that the Cleansing Department have these receptacles washed and disinfected at regular intervals.

Ashbins and ashbin shelters are another source of fly infestation, and as these in the main are uncovered it is essential for regular collections to be made. The shelters are disinfected regularly by the spraying staff of the Health Department.

*Rag Flock.*—The necessity of clean filling materials for bedding, cushions, upholstery and toys has long been the aim of Public Health officials, who have hitherto been handicapped by the lack of the necessary legislation. Investigations by Dr. Parsons in the late 1890's and Dr. Farrar in the early 1900's showed that the existing conditions under which rag flock was produced were far from satisfactory. The rags employed were of the cheapest grade, generally consisting of cast-off clothing, bits of old carpets from refuse heaps, much of which went

to bedding manufacturers as flock after being torn up in a laniating machine without undergoing any process of cleansing or sterilisation whatever.

The danger to health can readily be seen when it is considered that underwear and trousers, stained with urine and faeces were among the commonest articles used. Other dangers to health were the tearing up of old beds and the contained flock mixed with the freshly torn materials. Some flock manufacturers used only the best of rags, others had different grades, but in most cases no washing or disinfection took place in the preparation of the flock.

A few of the larger manufacturers did instal steam disinfectors, and, although this type of sterilisation may have killed off most of the micro-organisms in the rags, the dirt, or most of it, still remained. The firms who washed their flock used only cold water without soap or other detergent, and this at least produced a flock without the fusty odour associated with the unwashed.

It could not be disputed that some reform was essential. This was finally acknowledged by the passing of the Rag Flock Act, 1911, the Rag Flock Regulations, 1912, and later by the Rag Flock Act (1911) Amendment Act, 1928. The 1911 Act was intended to ensure that all rags were adequately cleansed before being converted into flock for use in bedding, upholstery and cushions. It soon became evident, however, that the regulations were not achieving this object and that further legislation was required in order to include other materials used for filling of bedding, furniture and toys.

The administration of these Acts was placed on the sanitary authorities who found many difficulties imposed on them by their limitations, such as the limited power of entry ; the difficulty, even by experts, as to whether a particular sample of the material was or was not " rag flock " ; the inadequate penalties imposed on unscrupulous manufacturers ; the failure of the chlorine test ; and the warranty Section 1 (3) as applicable to Scotland.

Although it was claimed that the Acts had resulted in reducing the sale of the grossest kind of rag flock for bedding and upholstery, the sanitary authorities felt there was room for further improvement. In 1938, a committee was appointed to consider whether the Rag Flock Acts, 1911 and 1928, and Regulations made thereunder were adequate to secure proper cleanliness of rag flock for bedding, etc. ; to investigate



fully whether the Acts and Regulations should be amended and new legislation made to apply to other materials used for the same purpose. The committee had to suspend investigations during the War and did not resume until 1945. The new far-reaching legislation which came into force on 1st November, 1951, under the Rag Flock and Other Filling Materials Act, 1951, and the Rag Flock and Other Filling Materials Regulations, 1951, resulted from their deliberations. One important conclusion arrived at was that licensing of manufacturers and storers was substituted for registration. Some time must obviously elapse before definite conclusions can be reached regarding the new Act, but at first glance it would appear that this legislation will result in a distinct improvement in the standards attained.

*Materials.*—Some of the materials at present in use are rag flock, sheep's wool, caddis wool, wool flock, wool puff, cotton waste, mill puff, white cotton linters, white mill puff, grey mill puff, cotton fly, mill puff (white cotton), cotton croppings, brown linters felting, wadding (jute), caddis (jute), kapok, sisal, black hair, second-hand hair, rubberised hair, fibro, burlap, poultry feathers, feathers, dutch feathers, down, hog hair, coir fibre, algerion fibre, alva marina, spanish moss, mexican fibre, straw and chaff, wood wool and pine fibre.

*Squatters.*—Lack of legislation makes squatters more or less a local responsibility, and constant supervision of the premises occupied by them is essential to maintain even the barest requirements of public health. Twenty-four visits were made during the year.

*Common Lodging Houses.*—Thirty-seven visits were made to the three houses in this area, and eighteen minor breaches of the bye-laws were noted. The management speedily attended to the complaints.

*Tents, Vans and Sheds.*—The two permanent sites in the Division are regularly inspected and nuisances found speedily dealt with.

*Piggeries.*—Regular inspections of the two piggeries in the Division are made and no difficulty is experienced in having them kept free from nuisance.

*Offensive Trades.*—No nuisance was caused by these trades during the year. In the Division there now exist a tanner, tallow melter, soap boiler and hide and skin factor.

*Brokers' Premises.*—Premises licensed under the Police Acts to transact business of this nature were all inspected and found satisfactory.

*Shops.*—During the year 1,070 visits were made to these premises and 66 complaints were dealt with, mainly of a minor nature. This satisfactory result is largely due to the improved standard of hygiene insisted upon by modern legislation, combined with the supervision and guidance given by the local sanitary authority. There is no doubt that the public are learning to appreciate the importance of cleanliness and patronise the better kept premises.

*Housing.*—The building of new houses within the area is slowing down, and when the Pollok Scheme is completed, Moss Heights, the ten-storeyed flats, will be the last major building until further sites are obtained by clearance areas or the boundary of the Division extended. Seventy-five houses were closed or demolished, having been declared dangerous by the Dean of Guild Inspector.

Several properties were added to the abandoned and declared dangerous list during the year, the responsibility for common nuisance removal again resting with the Department.

The number of new houses constructed in the Division during the year was 751, a decrease over the preceding year of 331. Of these houses 730 were erected by the local authority, 11 by conversion and 10 for ex-servicemen. Of the 751 houses, 44 were for single persons, 186 of three apartments, 493 of four apartments and 19 of five apartments.

The undernoted table shows the number of families rehoused in terms of the Housing (Scotland) Act, 1935, as 663. In addition, 211 families not overcrowded were rehoused for the first time.

Size of Houses		No. of Houses dealt with	Abated	Overcrowding		In-
				Reduced	Un- changed	creased
1	Privately owned houses ...	61	49	7	5	—
apt.	Local authority houses ...	—	—	—	—	—
2	Privately owned houses ...	307	261	34	5	7
apts.	Local authority houses ...	5	5	—	—	—
3	Privately owned houses ...	28	26	1	—	1
apts.	Local authority houses ...	14	11	3	—	—
4	Privately owned houses ...	2	2	—	—	—
apts.	Local Authority houses ...	4	3	—	—	1
	Total ... ..	421	357	45	10	9
	Lodger families rehoused	242	242	—	—	—
Grand Total ...		663	599	45	10	9

*Supervision of Rehousing and Intermediate Scheme Houses.*—

Houses in these schemes continue to be systematically inspected, and the nurse inspectors made 7,368 visits for this purpose. Twelve houses (·016 per cent. of the total) were found dirty and these were cleaned satisfactorily when the householders were informed of what was necessary. In four houses bugs were found and these were treated by the D.D.T. Unit. Of the 7,368 houses inspected, 5,923 were found to be clean and 1,433 in the fair category.

*Inspection of School Children.*—A large part of the duties of the two nurse inspectors is still devoted to this part of their work, and altogether 106 school visits were made and 10,582 scholars (5,726 boys and 4,856 girls) were examined. Of these, the number found infested was 1,055 (235 boys and 820 girls), and the number found dirty was 275 (250 boys and 25 girls). In 16 instances written notices were sent to the parents requiring them to improve the condition of their children, and these were all complied with within the stipulated time. Two girls were cleansed by the Local Authority.

W. B. EASTON,  
*Divisional Sanitary Inspector.*

## OFFENSIVE TRADES.

There was one addition during the year to the offensive trades on the register at the end of 1950.

The nature of these businesses is shown in the following statement—

Bone Boilers	...	...	...	...	6
Tallow Melters	...	...	...	...	13
Manure Manufacturers	...	...	...	...	3
Gut Cleaners	...	...	...	...	3
Hide and Skin Factors	...	...	...	...	5
Soap Boilers	...	...	...	...	4
Tanners	...	...	...	...	10
Glue and Size Manufacturers	...	...	...	...	1
Horse Slaughterers	...	...	...	...	1
Knackers	...	...	...	...	1
Blood Boilers	...	...	...	...	1
Tripe Boiler	...	...	...	...	1
					—
					49
					==

There were several changes in the register during 1951. Two Tallow Melters, one Hide and Skin Factor and one Soap Boiler in the Eastern Division of the City were removed from the register, and one

Tripe Boiler added. In the South-West two old established firms (a Tanner and a Tallow Melter), both of which had been closed under the Wartime Concentration of Business Order, reopened, while three Hide and Skin Factors in the Central Division went out of business. Thirty-nine of the 49 offensive trades now in operation are located in the Eastern Division.

#### RAG FLOCK AND OTHER FILLING MATERIALS ACT, 1951.

It is now essential for premises where filling materials are used to be registered by the local authority. The total number of registration certificates issued during 1951 was 77. In addition, 9 licences were issued in respect of premises where rag flock was manufactured or stored.

#### DISINFECTION.

This Section deals with one of the basic activities of the Public Health Department, being responsible for the disinfection of premises and the administration of the Fly Control Unit. It also assists the public by the loan of equipment.

*Fly Control Unit.*—The activities of the Fly Control Unit were continued unabated throughout the year. It is felt that we are now beginning to see benefit from the endeavours of this Unit. Several requests were received from occupiers of houses and restaurants for assistance in dealing with a prevalence of flies, and on each occasion the ministrations of the Fly Control Unit were much appreciated. The table below shows the number and type of premises dealt with during the year.

#### *Control of the House Fly.*

##### *Precautions against Gastro-enteritis.*

Ashbin shelters, horse-manure pits and other buildings were sprayed with D.D.T. Emulsion 2½ per cent. as follows :—

##### *Sprays.*

Ashbin Shelters	...	...	...	48,018
Air-Raid Shelters	...	...	...	90
Horse-manure Pits	...	...	...	451
Offensive Trades' Buildings	...	...	...	10
				<hr/>
				48,569
				<hr/>

*Materials Used.*

D.D.T. Emulsion 2½%	...	9,170 galls.
Whiting	... ..	6,620 lbs.

There has been a considerable increase in the amount of work done. In 1950 the total number of premises sprayed was 36,393, whereas this year the total is 48,569. A further measure of the increase in the work undertaken by this Unit can be gauged by the increased amounts of material used—over 9,000 gallons of D.D.T. Emulsion as against 6,000 in 1950.

*Disinfection of Premises, etc.*—The table below shows the number of premises disinfected on account of the presence of infectious disease; also shown is the number of library and school books dealt with for the same purpose.

Houses, etc., disinfected	... ..	7,155
Houses whitewashed	... ..	10
Library and School Books disinfected	... ..	1,032

The amount of materials used by the disinfectors and also issued to the public for the cleansing of their houses is shown in the following table :—

*Material used by Disinfectors and issued to the Public  
for cleaning houses, etc.*

Whiting	... ..	10,798 lbs.
Colour (Dry)	... ..	2,820 lbs.
Whitewash brushes lent on hire	... ..	141
Exenol Disinfectant (Crude)	... ..	114 galls.
Formaldehyde 40%	... ..	122 galls.
Naphthalene Powder	... ..	1,259 lbs.

*Disinfection of Second-hand Clothing.*—This Department also undertakes the disinfection of second-hand clothing being exported to Eire and abroad and 415,585 such articles were disinfected during the year. This is a considerable drop in the number from the previous year and the traders concerned attribute this decrease in the trade to overstocking in Southern Rhodesia during 1950, and also to Japanese and American competition in these countries. The bulk of the traffic, as last year, was with Southern Rhodesia and the Belgian Congo.



There was a slight fall too in the export of second-hand clothes to Eire, due mainly to increased prices.

The number of disinfections during the year was 643 and the fees for certification amounted to £550 19s.

*Disinfecting Stations.*—A variety of material is washed and disinfected at the two Disinfecting Stations at Ruchill and Belvidere, chiefly clothing, bedding and bed linen from houses in which an infectious disease has occurred, and including some from dirty houses and verminous persons. In the case of the infirm elderly compassionate washings are undertaken when necessary. Bedding and bedclothes, etc., from the Education Authority Holiday Camps, from Police Cells and from two Ambulance Associations are also dealt with. A much appreciated service is that offered to men living in lodging-houses who may have their clothes cleaned while they themselves have a bath on the premises. The number of washings, etc., carried out at the two stations during 1951 was as follows :—

				Total.	
				1951	1950
	Ruchill.	Belvidere.			
Number of washings ... ..	7,711	9,003		16,714	16,947
Average number per day ...	25.5	29.6		55.1	55.6
Articles washed and disinfected	283,691	310,449		594,140	572,472

## SECTION XIII.

## OCCUPATIONAL HEALTH

The arrangements for the medical examination of Corporation employees for admission to the Superannuation and Sick Pay Schemes continued as in previous years. During 1951 there were examined 1,519 males and 784 females. Table No. 1 shows the distribution of these candidates by Department and Scheme.

TABLE No. 1  
MEDICAL EXAMINATIONS.  
DISTRIBUTION BY DEPARTMENT, SCHEME AND SEX.

Department	Super- annuation		Sick Pay		Entrance		Retiral		Special		Grand Total	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Art Galleries and Museums ... ..	5	1	—	—	—	—	—	—	—	—	5	1
Baths ... ..	15	9	—	—	—	—	1	1	—	—	16	10
Blind Asylum ... ..	9	3	—	—	—	3	—	—	—	—	9	6
Chemical ... ..	—	—	1	—	—	—	—	—	—	—	1	—
Children's ... ..	4	23	—	—	1	1	—	—	—	—	5	24
City Analyst ... ..	—	1	—	—	—	—	—	—	—	—	—	1
City Assessor ... ..	3	8	—	—	1	3	—	—	—	—	4	11
City Chamberlain ... ..	5	9	—	—	3	11	—	—	—	—	8	20
City Factor's ... ..	7	1	1	—	7	2	—	1	—	—	15	4
Cleansing ... ..	86	1	115	1	2	—	3	—	—	—	206	2
Curator's ... ..	3	—	—	—	—	—	—	—	—	—	3	—
Education ... ..	69	181	1	260	8	87	2	1	—	—	80	529
Gas Board ... ..	59	20	264	17	29	7	7	—	3	—	362	44
Glasgow District Nursing ... ..	1	—	—	—	—	—	—	—	—	—	1	—
Halls ... ..	4	2	—	—	—	—	—	—	—	—	4	2
Highways ... ..	35	—	19	2	—	—	—	—	—	—	54	2
Housing ... ..	220	12	46	1	5	5	—	—	—	—	271	18
Libraries ... ..	10	30	—	5	3	32	—	—	—	—	13	67
Markets ... ..	10	—	—	—	—	—	—	—	—	—	10	—
Outside Authorities ... ..	4	1	—	—	—	—	—	—	—	1	4	2
Parks ... ..	69	1	73	3	1	—	1	—	—	—	144	4
Printing ... ..	9	4	1	—	—	—	—	—	—	—	10	4
Probation ... ..	2	—	—	—	—	—	—	—	—	—	2	—
Public Health ... ..	35	16	—	—	2	—	2	1	2	—	41	17
Public Works ... ..	71	2	17	4	3	1	1	—	2	—	94	7
Registrars ... ..	2	1	—	—	3	—	—	—	—	—	5	1
Sewage ... ..	10	—	8	—	—	—	1	—	21	—	40	—
Town Clerk's ... ..	4	3	—	—	1	1	—	—	1	—	6	4
Water ... ..	77	2	23	—	5	1	1	—	—	—	106	3
Veterinary Inspector's ... ..	—	—	—	—	—	1	—	—	—	—	—	1
Grand Total ... ..	828	331	569	293	74	155	19	4	29	1	1,519	784

159 males and 55 females (9.38 per cent. of the total examined) were rejected as unfit for admission to the Schemes. In Table No. 2 the number of rejections are shown in relation to the clinical conditions found.

TABLE No. 2.

## MEDICAL EXAMINATIONS.

## CLINICAL CONDITIONS EXCLUDING CANDIDATES FROM THE SCHEMES.

	Males	Females
Tuberculosis—		
Pulmonary ... ..	25	15
Other forms (including lupus) ...	2	—
Chronic Bronchitis ... ..	5	—
Other Lung Diseases ... ..	3	—
Heart Disease ... ..	11	5
High Blood Pressure ... ..	15	11
Anaemia (Iron deficiency type) ...	1	1
Varicose Veins ... ..	15	4
Haemorrhoids ... ..	1	—
Peptic Ulcer and Gastritis ... ..	9	2
Hernia ... ..	14	1
Ear Conditions ... ..	38	7
Eye Conditions ... ..	4	2
Bazin's Disease ... ..	—	1
Dermatitis ... ..	2	1
Neurological and Psychiatric ...	4	2
Rheumatoid Arthritis ... ..	1	—
Diabetes (uncontrolled) ... ..	2	—
Genito-Urinary Defect ... ..	3	—
Obesity ... ..	1	2
Poor Physique ... ..	3	1
All Conditions ... ..	<u>159</u>	<u>55</u>

1,336 X-ray examinations were made on those medically examined during 1951 :—

X-ray Unit, Ruchill Hospital ... ..	437
Mass Radiography Unit, Ruchill ... ..	892
X-ray Unit, Stobhill Hospital (Special examination) ... ..	7
Total ... ..	<u>1,336</u>

During the two years, 1950 and 1951, a total of 2,912 males and 1,362 females have been examined for the Superannuation and Sick Pay Schemes, etc. In view of the wide variety of occupations represented in these examinations it seems reasonable to conclude that analysis of the results by social class (Registrar-General's Classification) would give some indication of the incidence of certain minor defects in the population of the City as a whole (Tables 3-6).

TABLE No. 3.

## PERSONNEL EXAMINED DURING THE PERIOD 1950-1951.

## CASES FOUND TO HAVE EAR CONDITIONS.

*Males, all ages, 15 years and upwards.*

Ear Conditions				NUMBER OF DEFECTS					All Classes	
				Social Class					Total Number	Percent- age
				1	2	3	4	5		
Perforation of Tympanic Mem- brane	...	...	...	—	2	4	2	14	22	0.75
Acute Otitis	...	...	...	—	1	—	—	3	4	0.14
Chronic Suppurative Otitis Media	...	...	...	2	5	16	9	72	104	3.57
Ext. Otitis	...	...	...	—	4	—	2	6	12	0.39
Number of People who have had Mastoidectomy	...	...	...	—	7	2	3	21	33	1.13
Occupational Deafness	...	...	...	—	—	2	—	4	6	0.20
Other Conditions	...	...	...	1	1	5	2	12	21	0.72
Total Conditions found	...	...	...	3	20	29	18	132	202	6.9
Total Personnel	...	...	...	116	385	587	275	1,549	2,912	
Percentage of Persons with Defects in each Class	...	...	...	2.58	5.2	4.94	6.5	8.52	6.9	

TABLE No. 4.

PERSONNEL EXAMINED DURING THE PERIOD 1950-1951.

CASES FOUND TO HAVE EAR CONDITIONS.

*Females, 15 years and upwards.*

Ear Conditions				SOCIAL CLASS					TOTAL	
				1	2	3	4	5	Number	Percent- age
Perforation of Tympanic Mem- brane ... ..	...	...	...	—	2	—	—	9	11	0·8
Acute Otitis ... ..	...	...	...	—	2	—	—	—	2	0·15
Chronic Suppurative Otitis Media ... ..	...	...	...	—	8	—	—	16	24	1·78
Ext. Otitis ... ..	...	...	...	—	1	—	—	2	3	0·22
Number of Mastoidectomies ...				2	4	—	—	2	8	0·58
Occupational Deafness ...	...			—	—	—	—	—	—	—
Other Conditions ... ..	...	...		—	1	1	1	8	11	0·8
Total Conditions found ...	...			2	18	1	1	37	59	4·33
Personnel Total ... ..	...	...		84	614	22	25	617	1,362	
Percentage of Persons with Defects in each Class ...	...			2·38	2·9	4·54	4·0	6·0	4·33	



TABLE No. 5.

PERSONNEL EXAMINED DURING THE PERIOD 1950-1951.

CASES FOUND TO HAVE MINOR DEFECTS OF THE FEET.

Feet Conditions			SOCIAL CLASS					TOTAL	
			1	2	3	4	5	Number	Percent- age
<i>Males, All ages, 15 years and Upwards—</i>									
Pes Planus	...	...	2	7	19	13	66	107	3.67
Hallux Valgus	...	...	2	10	21	16	64	113	3.88
Hallux Rigidus	...	...	2	2	15	5	22	46	1.57
Total Conditions found ...			6	19	55	34	152	266	9.12
Personnel Total ...			116	385	587	275	1,549	2,912	
Percentage of Persons with Defects in each Class ...									
Class ...			5.17	4.9	9.36	12.3	9.8	9.12	
<i>Females, All ages, 15 years and Upwards—</i>									
Pes Planus	...	...	1	13	—	1	23	38	2.82
Hallux Valgus	...	...	7	25	1	—	99	132	9.62
Hallux Rigidus	...	...	—	3	—	—	2	5	0.36
Total Conditions found ...			8	41	1	1	124	175	12.8
Personnel Total ...			84	614	22	25	617	1,362	
Percentage of Persons with Defects in each Class ...									
Class ...			9.5	6.67	4.54	4.0	20.0	12.8	

TABLE No. 6.

PERSONNEL EXAMINED DURING THE PERIOD 1950-1951.

CASES FOUND TO HAVE VARICOSE VEINS.

	SOCIAL CLASS					TOTAL	
	1	2	3	4	5	Number	Percent- age
<i>Males, 15 years and Upwards—</i>							
Slight Varicose Veins ...	4	4	28	15	79	130	4.4
Severe Varicose Veins ...	—	3	11	7	54	75	2.57
Varicose Veins with Com- plications ...	—	—	4	3	9	16	0.55
Total Varicose Conditions found ...	4	7	43	25	142	221	7.52
Personnel Total ...	116	385	587	275	1,549	2,912	
Percentage of Persons with Defects in each Class ...	3.44	1.8	7.7	9.05	9.1	7.52	
<i>Females, 15 years and Upwards—</i>							
Slight Varicose Veins ...	2	7	3	—	50	62	4.5
Severe Varicose Veins ...	—	5	—	—	37	42	3.08
Varicose Veins with Com- plications ...	—	—	—	—	3	3	0.22
Total Varicose Conditions found ...	2	12	3	—	90	107	7.8
Personnel Total ...	84	614	22	25	617	1,362	
Percentage of Persons with Defects in each Class ...	2.38	1.95	13.6	—	14.58	7.8	

The Occupational Health Unit carried out several investigations in various factories in the City, industrial dermatitis once again forming the major part of these investigations. The City Analyst made a number of chemical analyses in the course of this work.

In one small factory an interesting investigation was made into the cause of headaches and defects of vision among the employees. It was found that methanol fumes from the industrial process carried out in the factory had leaked into the atmosphere of the workroom and that the workers' complaints were attributable to faulty ventilation. When improvement to the exhaust ventilation and general ventilation

of the workroom was carried out there was a marked reduction in the number of complaints. A further complaint in this factory was that the handling of the organic solvent produced a form of skin condition in which the fat was being dissolved out of the finger tips. Attempts are being made by the use of barrier creams to protect the hands of the workers.

During the summer, medical staff from this Department were invited to give assistance when an outbreak of skin rashes occurred among dockers who had been unloading cargoes of horse beans. The skin condition was found to be of the type produced by a mite, and entomological analysis of the dust of the beans revealed that the condition was due to infestation with *pediculoides ventricosus*. The high incidence of the skin condition among dockers appeared to be largely due to the method of dock work. When recommendations were made to both the management and the trade unions representatives and acted upon, the extent of the skin reactions was considerably reduced. Use was made of washing facilities at the docks, protective clothing and barrier creams and mechanical methods of removing the beans from the ships. Although this condition has been well known in certain English ports it was the first occasion on which an outbreak had occurred in Glasgow. A sequel to the import of these beans into Glasgow was that the Occupational Health Unit was asked to co-operate with the medical officer of a rural district who had encountered a similar skin condition among workers in a granary. Investigation revealed that the same batch of beans had also been responsible for this minor outbreak.

During the autumn, an investigation was made into the incidence of dermatitis among workers in a box-making factory. The skin condition appeared in the form of sensitisation, and it was found that a new light-weight timber, known as Toporite, had been introduced into the manufacture of packing cases. Enquiry showed that the first skin reaction appeared some six weeks after the introduction of this timber to the factory. Patch tests carried out by a city dermatologist confirmed that this particular wood was the cause of the trouble.

During the year a preliminary survey was made of several plumbers' shops on building sites. It was found that the existing measures taken to protect lead burners were inadequate as chemical analyses

of the urine of these men revealed a high lead content. The employers have agreed to adopt certain recommendations made by this Department in an endeavour to minimise this condition.

Investigations into the health and conditions of work of city sewer men were completed during the year. Chemical analyses of sewer gases revealed the presence of carbon monoxide, carbon dioxide, benzene, hydrogen sulphide, petroleum vapour and chlorine. The gaseous content of a particular section of sewer was found to depend entirely on the trade wastes entering that sewer. Contents of sewage and sewer gas varied not only from sewer to sewer but from hour to hour in the same sewer. Certain medical conditions were found to occur in the sewer men which could be attributable to their work and recommendations are being made to the appropriate Committee in an endeavour to improve the working conditions of these men.

At the end of the year arrangements were being made to inaugurate an Occupational Health Service in a large bakery in the city. It is hoped that by health education an improvement in personal hygiene among the workers in the bakery will result in a cleaner product being distributed to the shops.

## SECTION XIV

## WELFARE SERVICES.

*Residential Accommodation.*—Residential Accommodation, which must be provided in terms of Section 21 of the National Assistance Act, 1948, has been extended during the year by the opening on 1st November, 1951, of an additional Home of the hostel type, known as Stoneleigh, 48 Cleveden Drive, Glasgow. Adaptation was almost completed in two further Homes at 39 and 42 Sherbrooke Avenue, Glasgow, for opening in the Spring of 1952, providing accommodation for a further thirty-nine aged persons. Further houses have been purchased and will be adapted for similar purposes at the following addresses—13/15 Turnberry Road, 33/34 Huntly Gardens, 53 55 Sherbrooke Avenue, and 56 Langside Drive. The details of accommodation meantime available are as under :—

*Foresthall.*—During the year, repainting in the hospital section was completed and considerable redecoration and modernisation of toilet accommodation, etc., has been undertaken in the remainder of the institution. The population of Foresthall is now largely of the older type and additional staff have been appointed during the year as this class of resident requires more care and attention. Improvements have been made in the dietary and additional sitting room accommodation has been made available. The facilities available in the Shop at Foresthall, where the residents may purchase tobaccos, sweets, cakes, biscuits, etc., are very popular and the profits from the Shop are utilised to provide additional amenities for the residents in the Home. Improvements have been made in the variety of clothing supplied to residents.

*Crookston.*—The accommodation at Crookston Home continues to be used to capacity. The proportion of frail ambulant persons among the residents is higher than in previous years as elderly persons applying for the first time for admission can, if they are active, be accommodated to a large extent in the small type of Home and the nursing staff available at Crookston are more able to deal with the less active old people





TWO 90-YEAR-OLD RESIDENTS OF WOODBURN.



than is possible in the smaller Homes. Those admitted to the cottages are, of course, of the more active class and there have been no changes during the year of the residents in the fourteen single rooms in the Annexe. One or two have been transferred to the wards in the Main Home during temporary illness but all have been fit to return to the Annexe on recovery.

The Women's Guild formed at Crookston during 1950 is a great boon, the membership being about ninety, and all enjoy the fortnightly meetings at which guest speakers are always available. Arrangements have also been made for the Guild members to visit other Guilds and they have had several enjoyable outings of this nature.

Sixty of the residents of Crookston were entertained during the month of May on S.S. "Dalmarnock" and were fortunate to have a perfect day for the outing, which was greatly enjoyed.

The Crookston Social and Recreation Committee formed among the residents continues to function and arranges regular whist drives, small concerts, domino and draught tournaments, etc., during the winter months. The Bowling Committee arranges matches against a number of outside clubs at Crookston and at other bowling greens, and the bowling green is very popular with the residents.

During the year, the laundry was reconstructed and additional facilities made available.

*Woodburn.*—This Home, opened in April, 1948, continues to provide accommodation for twenty-eight aged persons in six single rooms, five double rooms, and four rooms for three. There are fifteen female residents, whose average age is 80, and thirteen males, the average age being 77·5 years. There have been no cases of serious illness during the year.

Rug making and knitting of socks are popular in this Home, and four hand-made rugs have now been completed. The residents generally are anxious to assist with light household duties and take an interest in the running of the Home.

*Tayford.*—This Home, situated on the south side of the city, was opened in October, 1950, and has accommodation for twenty-four residents in one single room, four rooms for two, and five rooms for three. At the end of the year, fifteen women and nine men were in residence, the average ages being respectively 77 and 79. The general standard of health is high having regard to the age grouping and many of the residents enjoy walking and indoor games. A nine-hole putting green has been provided in the garden and this is in almost constant use in good weather.

*Stoneleigh.*—This Home in the west end of the city was opened on 1st November, 1951. The accommodation is one single room, two rooms for two, five rooms for three, and one room for four. A feature of this former mansion house is the wood panelling in the hall and some of the rooms. There are sixteen women, average age 77·5, and eight men, average age 78, in residence.

An experiment has been tried in this Home by accommodating two blind women along with the sighted residents. This experiment has proved very satisfactory and the sighted residents are most helpful in assisting their less fortunate companions.

The ages of persons now applying for admission to Old Folk's Homes is much higher than a few years ago and it is now very uncommon to receive an application for admission to any Home from persons under seventy years of age, and the average age of new admissions during the year 1951 was 73 for women and 77 for men.

In Foresthall and Crookston, concerts and cinema entertainments are provided in alternate weeks throughout the winter months, and in the smaller Homes the Superintendents arrange musical evenings at intervals throughout the winter. The Health and Welfare Committee provided an afternoon 'bus tour for the residents of Woodburn and Tayford in August, when the residents were taken to the Trossachs and entertained to high tea at Aberfoyle on the return journey.

During the year, the managements of the Theatre Royal, the Citizen's Theatre and the Metropole Theatre, the Kelvin Hall Committee, the Rolls Royce Players, and the Glasgow Boy Scouts Gang Show extended invitations to residents to attend their various entertainments.

The Health and Welfare Committee provided transport to and from the theatres, etc., and the old people thoroughly enjoyed these outings. The Department takes this opportunity of placing on record their appreciation to the theatre proprietors concerned. In all, almost 1,100 seats were allocated throughout the year for the entertainment of these old people.

At all Homes, books, newspapers, etc., are available for the residents. Arrangements have been made with the Glasgow School of Chiropody that the services of a chiropodist are available at any of the Homes as required and regular attendance is provided at Foresthall and Crookston.

The following table shows the number in residence in each of the five Homes on the last day of each month during 1951.

1951	FORESTHALL				CROOKSTON				WOODBURN Total	TAYFORD Total	STONELEIGH Total
	Hospital	Casual and Temp. Accom.	Residential Accommodation	Total	Home	Cottages	Annexe	Total			
31st January	627	101	463	1,191	321	111	14	446	28	20	—
28th February	625	87	466	1,178	328	112	14	454	28	23	—
31st March ...	626	83	459	1,168	333	109	14	456	28	22	—
30th April ...	603	64	439	1,106	333	113	14	460	27	20	—
31st May ...	605	47	416	1,068	334	110	14	458	27	22	—
30th June ...	596	†71	421	1,088	334	113	14	461	27	18	—
31st July ...	604	57	420	1,081	328	117	14	459	28	23	—
31st August ...	602	59	437	1,098	329	115	14	458	28	24	—
30th September	594	73	447	1,114	322	117	14	453	28	24	—
31st October	610	70	429	1,109	327	118	14	459	27	24	—
30th November	621	63	433	1,117	322	116	14	452	27	24	22
31st December	613	*74	421	1,108	324	115	14	453	26	23	22
Lowest ...	594	47	416	1,068	321	109	14	446	26	18	—
Highest ...	627	101	466	1,191	334	118	14	461	28	24	—
Accommodation	640	891		1,531	342	†136	14	492	28	24	24

† Includes squatters evicted at Ibrox.

\* Includes 14 homeless as result of storm.

‡ Cottages—Single ... ... 72  
Married ... ... 64

Total ... ... 136



In all, 1,001 applications were received during the year for admission to Corporation Homes. This is an increase of 112 over the figure for 1950. In addition, 271 applications were made for supplementary payment for maintenance of persons admitted to Homes managed by voluntary organisations. At the end of the year, a supplement was being paid to various voluntary bodies for the maintenance of 105 old people, 15 epileptics, and 4 handicapped persons.

Of these 1,001 who applied for admission to Corporation Homes, 375 applications were for admission to Crookston or one of the small Homes. Of these, 143 subsequently withdrew their application and 131 were admitted as under :—

Crookston—Main Home	...	...	...	65
Cottages	...	...	...	18
Annexe	...	...	...	—
				<hr/> 83
Woodburn	...	...	...	6
Tayford	...	...	...	18
Stoneleigh	...	...	...	24
				<hr/>
Total	...	...	...	<u>131</u>

The balance of 101 remain on the waiting-list for admission as vacancies occur. This number will be reduced as the new Homes are opened. The remainder of the applications, 626, were for admission to Foresthall, this figure including aged persons and persons seeking temporary accommodation.

*Temporary Accommodation.*—The Committee is still concerned about accommodating homeless families in Foresthall. However, conditions have considerably improved during the year as a result of the enforcement of stricter discipline, particularly in the ward for older boys, and the number of families has been steadily reduced as shown in this table detailing the number of homeless women and children accommodated on the last day of each month during the year.

Date		Women	Boys	Girls
31st January, 1951	...	23	36	38
28th February, 1951	...	19	31	34
31st March, 1951	...	18	23	33
30th April, 1951	...	12	20	26
31st May, 1951	...	8	14	19
30th June, 1951	...	11	21	32
31st July, 1951	...	8	20	24
31st August, 1951	...	10	20	27
30th September, 1951	...	12	20	31
31st October, 1951	...	10	21	29
30th November, 1951	...	12	25	23
31st December, 1951	...	10	19	21
Lowest (May)	...	8	14	19
Highest (January)	...	23	36	38

These "homeless families" are persons who have either been evicted from their homes on account of non-payment of rent, or evicted from lodgings, from the homes of relatives, or from property where they were "squatting."

On the evening of 11th June, 1951, a building at 21 Balmano Street collapsed, rendering forty people homeless. The Welfare Section, which provides a 24-hour service at 23 Montrose Street, was advised by Police Headquarters and a conveyance was immediately obtained and twenty-seven persons admitted to Foresthall for temporary accommodation. The furniture of eight families was, the following day, removed for safe custody and storage and, when the families were rehoused by the City Factor's Department, their furniture was transferred to their new accommodation.

Similarly, when a building subsided at 81 Lambhill Street in November, 1951, four women and six children, who had to be evacuated from their homes, were admitted to Foresthall and furniture was again removed to storage. These people remained only overnight and found accommodation the following day with friends. When rehoused by the City Factor's Department, their furniture was again transferred to their new homes.

In the early morning of Sunday, 30th December, 1951, the services of the Welfare Section were required at ten points in the city as a result of severe storm damage and a number of the staff were called upon to report for duty. At six of these points, the residents were able to make their own arrangements for accommodation. In one

case, the need was for food and refreshment pending re-admittance to their home and this was arranged. In the eighth case, the family evacuated were removed to Foresthall, where they were able to have a bath and a meal before making their home with friends. The two most serious incidents were located at 20 Crawford Street, Partick, and 42 Maclean Street, Kinning Park. At Crawford Street, where a chimney head had blown down, demolishing part of the wall of the building, sixteen families were evacuated on the orders of the Master of Works and City Engineer. Furniture from these homes was removed by the Welfare Section for storage and the evacuated families who could not obtain immediate shelter with friends, comprising six men, eight women and fourteen children, were removed to Foresthall by 'bus, fed, and accommodated overnight. Some were rehoused within a very short time and their furniture removed to their new homes by the Welfare Section. The incident at Maclean Street involved twelve families whose furniture was also removed to storage, but only one man required accommodation and he was admitted to hospital.

While only twenty-eight persons were accommodated in Foresthall as a result of these incidents on 30th December, seventy-eight meals were served during the day to persons affected by the storm damage.

*Persons Without a Settled Way of Living.*—Persons without a settled way of living accommodated on behalf of the National Assistance Board in Foresthall averaged eight per night throughout the year.

*Welfare Services for the Handicapped.*—The agreement with the Outdoor Mission to the Blind under which the Mission act as agent of the Corporation in connection with home teaching and certain welfare services for blind persons continues to operate satisfactorily. In difficult cases it is quite usual for the home teacher of the Mission to consult the officials of the Welfare Section or vice versa, and many difficulties have been successfully overcome by co-operation.

Arrangements were completed during the year for the admission of three blind women to Oswald House, Edinburgh, where there are now ten Glasgow residents. As already mentioned, two blind women are accommodated in Stoneleigh, the new Home opened for aged persons. Twenty-four blind men belonging to Glasgow are accommodated at Cairnhill, Airdrie, which is managed by the Glasgow and South-West Scotland Joint Committee for the Blind.

Placing of blind men in employment, whether open or sheltered, has always been a difficult problem but, acting in conjunction with the Rehabilitation Officers at the various Employment Exchanges and with the Manager of the Blind Asylum, such applications during the year have been successfully dealt with. Eight blind persons were admitted for training to the Royal Glasgow Asylum for the Blind.

During the year, 801 persons were examined for blindness, including 85 re-examinations, of whom 531 were certified blind and 270 not blind. The total number of blind persons on the Department's register at the end of the year was 2,013. Changes of address, etc., in the register of blind persons maintained by the Outdoor Mission are notified to this Department, who, in turn, advise the Transport Department in connection with tram passes.

Agreements have been completed with the Outdoor Mission to the Deaf and Dumb and the St. Vincent After-Care Society for Deaf and Dumb, under which these organisations act as agents of the Department in connection with the welfare of deaf and dumb persons. An arrangement has also been made whereby a football team of deaf and dumb boys may have a practice game or a match at Foresthall on not less than two evenings each week.

During the year, sanction was given by the Health and Welfare Committee for the provision of ramp crossings to three handicapped men, who had been provided by the Ministry of Pensions with all-weather tri-cars to enable them to undertake their employment.

Home visiting continues to be the most important feature of the work undertaken by the After-Care Section, which deals with post-special school children, and this regular contact with the homes of these handicapped adolescents is building up friendship between the After-Care officers, the handicapped persons, and their relations.

An Occupational and Training Centre for youths was opened at South Portland Street in June, 1951, and there are now seventeen attending this Centre five days a week. The production is slow but the quality of the handicrafts produced is good. Their work includes rug making, lamp shades, sea-grass stools and horn work. As the lads master these handicrafts, greater variety will be introduced. Spray baths are available and a dinner meal is provided. Premises at Killearn Street are meantime being adapted for a similar Centre for girls.



A number of epileptics known to the Department, while capable of being self-supporting, are difficult to place in employment. Co-operation between various voluntary organisations and the After-Care Section and also with the Youth Employment Service is excellent.

It will be appreciated that this work cannot be measured by statistics but it may be of interest to record that there are now 1,700 on the roll in this After-Care Section and that almost 4,000 visits have been paid during the year by the After-Care officer and her two assistants.

*Lunacy Certification.*—Applications have been made for the removal to Mental Hospital of 768 persons. In many instances, the application is initially made by the patient's medical practitioner. Medical Officers of the Department visit the patient with a view to certification and the Welfare Section is responsible for contacting relatives to obtain their consent. Included in this figure are 110 cases referred to the Department by the Procurator-Fiscal as persons in custody who are deemed to be mentally unfit to plead. The allocation of beds in Mental Hospitals is, of course, a matter for the Western Regional Hospital Board.

*Contributions to Old People's Organisations.*—Grants of crockery, kettles or games have been made during the year to ten voluntary organisations providing meals or recreation for old people, and a grant of £500 was made to the Glasgow Old People's Welfare Committee.

*Registration and Inspection of Old Persons' Homes.*—By virtue of the powers contained in the National Assistance Act, 1948, the National Assistance (Registration of Homes) (Scotland) Regulations were made by the Secretary of State and came into operation on 1st November, 1949. Under these regulations, the Local Authority is required to inspect and register Homes, the sole or main object of which is the provision of accommodation for aged persons or for the blind, crippled, or deaf and dumb. The regulations do not apply to certain categories such as hospitals, nursing homes registered under the Nursing Home Registrations (Scotland) Act of 1938, premises managed by Government departments and Local Authorities and certain institutions coming under the Mental Deficiency Acts and the Children and Young Persons (Scotland) Act of 1937.



During the year 1951, four applications for registration were received, one being granted and three still pending. Registration was also approved during the year in respect of three applications made during the previous year in which a decision had been delayed until certain adaptations had been completed.

The total number of Voluntary Homes now registered is accordingly ten. Six are still in course of adaptation and registration is delayed until the necessary improvements have been completed. The total accommodation now available in these registered Homes is 612 beds.

*Compulsory Removal of Persons in Need of Care and Attention.*—

Section 47 of the National Assistance Act grants authority to remove to hospital or other suitable accommodation any person suffering from grave chronic disease or being aged, infirm, etc., and not receiving suitable care and attention, on the certificate of the Medical Officer of Health and with the authority of the court. This power is exercised only when it is found impossible to persuade the person to act in his or her own best interests. It was necessary to make application to the court in only one case during the year.

*Temporary Protection of Property of Persons Admitted to Hospital, etc.*—Where no other suitable arrangements are made for the protection of the property of a person admitted to hospital or other institution, it is the duty of the Local Authority to protect the property. This duty extends only to movable property which, when necessary, is removed by the Department to safe storage and returned to the owner on discharge from hospital or to his legal representative. The movable property includes not only personal belongings, e.g., jewellery and personal documents, but also household furniture for which storage provision requires to be made.

*Burials and Cremations.*—Arrangements are made by the Welfare Section for the interment of any person who has died or has been found dead in the city where no other suitable arrangements have been made. Cremation is arranged only where it is known that the deceased so desired. Every endeavour is made to contact friends and relatives of the deceased.

During the year, 303 such burials were arranged by the Department, an increase of 24 over the previous year. Claims were lodged with the Ministry of National Insurance for Death Grants in terms of Section 22 (v) of the National Insurance Act, 1946, in 68 cases, in 52 of which a grant was allowed.

*Catering.*—During the year, it was decided to close the Crookston Cooking Depot, which is now being held on a care and maintenance basis for Civil Defence purposes.

The Department continued to operate the Restaurant at Kelvin Hall, where all catering services were provided during exhibitions arranged by the Kelvin Hall Committee, and during the year the number of meals served was as under :—

Main Meals	...	...	441,567
Light Meals	...	...	763,919
Total	...	...	<u>1,205,486</u>

In addition, the Department provided the catering on two evenings per week at the dances organised in St. Andrew's Halls by the Halls Department, the average number served being eight hundred per week.

Ice cream is made at the Kelvin Hall Restaurant daily and supplied to the Old Folk's Homes and to Nurseries under the control of the Department, and also to the Children's Department for their Children's Homes.

*Clothing Store.*—The Clothing Store, in addition to supplying the needs of residents in the Homes, boarded-out mental defectives, etc., maintained by the Department, also operates an arrangement with the National Assistance Board for the supply of clothing under the Board's special needs provisions. The Clothing Store is also responsible for supplying and issuing clothing on behalf of the Children's Department to boarded-out children and for the dressing of these children prior to travelling to the home of guardians. The value of the clothing distributed during the year was well over £100,000.

*Investigations.*—Investigations are undertaken by the Welfare Section on behalf of other sections of the Department (e.g., Child Welfare and Domestic Help), and on behalf of the Education Department in connection with the supply of food, clothing, etc., and the City Chamberlain's Department (Collector's Section) in connection with applications for relief of rates. Investigations are also undertaken on behalf of the Committee of the Clydeside Air Raids Distress Fund and special investigations are undertaken on behalf of the Lord Provost. In all Child Welfare and Domestic Help applications, the assessment of the appropriate charge is also undertaken by the Welfare Section.

The number of such investigations during the year under review is shown in comparison with the year 1950.

On behalf of the—	1951	1950
Education Department ... ..	10,875	9,559
City Chamberlain (Collector's Section) ...	202	202
Child Welfare Section of the Department	408	385
Domestic Help Section of the Department	6,030	5,805
Clydeside Air Raids Distress Fund ...	344	271
Lord Provost ... ..	755	651
	<u>18,614</u>	<u>16,873</u>

It will be noted that the volume of work in this Section shows considerable increase over the previous year.

The development of a visiting service by the District Welfare Officers is a new feature in the work of the Welfare Section. In many instances, the circumstances of old people are brought to the notice of the Department by ministers, general practitioners, hospital almoners, officers of the National Assistance Board and Voluntary Organisations, friends, relatives, or through other sections of the Department, such as health visitors or the sanitary inspectors. Such persons are visited by the District Welfare Officer and the various services available explained to them. In certain cases they are unwilling to accept any immediate assistance but a postcard addressed to the Medical Officer of Health is left in the house and they are invited to forward it in the event of attention being required at a later date. The Welfare Officer retains the names of such people and visits occasionally in an effort to build up a feeling of confidence and friendship, so that if they feel the need for admission to an Old Folk's Home, the services of a domestic help, or other care, they have no hesitation in confiding in the Welfare Officer and seeking his assistance. Advice regarding pensions and procedure for obtaining financial aid from the National Assistance Board is frequently desired.

In all, 241 cases of this type were visited during the year and, at the end of the year, the number placed on the special after-care or visiting list was 79. It has been found that these visits are very much appreciated, particularly by old people who have few relatives or none who visit regularly. In the remainder of the cases, no supervision or follow-up was necessary.

## SECTION XV.

## LEGISLATION

The following Acts of Parliament, Regulations, etc., applicable to the Health and Welfare Services in Scotland came into operation during the year:—

*Alkali Works Regulation (Scotland) Act, 1951.*—Authorises the application of the provisions of the Alkali, etc., Works Regulation Act, 1906, to Scotland and makes provision for authorising inspectors under that Act to inspect any works which are of a character likely to cause the evolution of noxious or offensive gases.

*Local Government (Scotland) Act, 1951.*—Amends the law relating to limitation of annual expenditure by town councils for certain purposes, etc.

*Midwives (Scotland) Act, 1951.*—Consolidates certain enactments relating to midwives in Scotland.

*National Assistance (Amendment) Act, 1951.*—Amends Section 47 of the National Assistance Act, 1948 (removal to suitable premises of persons in need of care and attention).

*National Health Service Act, 1951.*—Authorises the making and recovery of charges in respect of certain dental and optical appliances under the National Health Service Act, 1946, and the National Health Service (Scotland) Act, 1947; makes provision for the accommodation and treatment outside Britain of persons suffering from respiratory tuberculosis; remits stamp duty on receipts given in respect of such charges; and amends the National Assistance Act, 1948, in relation to requirements for services under the said Acts of 1946 and 1947.

*Nurses (Scotland) Act, 1951.*—Consolidates certain enactments relating to nurses for the sick in Scotland.

*Rag Flock and Other Filling Materials Act, 1951.*—An Act to secure the use of clean filling materials in upholstered articles and other articles which are stuffed or lined and for purposes connected therewith.

*Rivers (Prevention of Pollution) (Scotland) Act, 1951.*—Provides for establishing river purification boards in Scotland and confers on or transfers to such boards functions relating to the prevention of river pollution; makes new provision for maintaining or restoring the cleanliness of the rivers and other inland waters and the tidal waters of Scotland in place of the Rivers Pollution Prevention Act, 1876.

## CIRCULARS, ORDERS, REGULATIONS, ETC., ISSUED IN 1951.

*S.I.* = *Statutory Instrument*.    *D.H.S.* = *Department of Health for Scotland*.

*M.F.* = *Ministry of Food*.    *S.H.D.* = *Scottish Home Department*.

*Civil Defence—*

*S.I.* 755 of 28.4.51. Designation of the Minister of Health and the Minister of Local Government and Planning Order, 1951.

*S.I.* 1223 of 7.7.51. Emergency Feeding Regulations.

*S.I.* 1459/S.74 of 3.8.51. Shelters (Planning) (Scotland) Regulations.

*S.H.D.* Civil Defence (Scotland) Circulars—

No. 87 of 1.1.51. Training of Civil Defence Corps. Establishment for Local Divisions.

No. 90 of 1.2.51. Civil Defence Corps. Training. Memorandum and Further Training of Volunteers.

No. 91 of 9.2.51. Civil Defence Training Publications.

No. 95 of 22.2.51. Civil Defence Training Pamphlets and Manuals.

No. 99 of 2.4.51. Civil Defence Training. Film Strips and Film Projectors.

No. 109 of 5.6.51. C.D. Corps Training Memo. No. 5.

No. 115 of 28.6.51. Full First Aid Training.

No. 116 of 3.7.51. Civil Defence Corps and W.V.S.

No. 118 of 5.7.51. Basic General Syllabus.

No. 158 of 12.11.51. Civil Defence Training. Film Strips.

*Food—*

*S.I.* 13 of 1.1.51. Food Standards (Ice-Cream) Order, 1951.

*S.I.* 67 of 16.1.51. Food Standards (Ice Cream) Heat Treatment, etc., Amendment Regulations, 1951.

*M.F.* 4/51 (U.K.) of 16.2.51. Orange Squash.

*S.I.* 315 of 26.2.51. Supplies and Services. The Food (Licensing of Retailers) (Amendment) Order, 1951.

*S.I.* 462 of 16.3.51. Labelling of Food (Amendment) Order, 1951.

*M.F.* (7/51 (U.K.) of 29.3.51. Meat Products and Canned Meat (Amendment) Order, 1951.

*S.I.* 668 of 17.4.51. Food Standards (Cream) Order, 1951.

*M.F.* 10/51 (U.K.) of 23.4.51. Standards for Cream.

*S.I.* 904 of 22.5.51. Kitchen Waste (Amendment) Order, 1951.

*D.H.S.* Circ. 64/1951 of 14.6.51. Dried Egg (Control of Use) (Revocation) Order, 1951.

*S.I.* 1196 of 2.7.51. Food Standards (Edible Gelatine) Order, 1951.

*S.I.* 1197 of 2.7.51. Edible Gelatine (Revocation) Order, 1951.

*M.F.* 14/51 (U.K.) of 6.7.51. Standards for Edible Gelatine.

*D.H.S.* Memo. 80 of 6.7.51. The Cream Order, 1951.



- S.I. 1456 of 7.8.51. Food Standards (Fish Paste) Order, 1951.
- S.I. 1457 of 7.8.51. Food Standards (Meat Paste) Order, 1951.
- M.F. 17/51 of 9.8.51. Standards for Meat Paste and Meat Spread, Fish Paste and Fish Spread.
- S.I. 1487 of 6.9.51. Food Infestation (Amendment) Order, 1951.
- M.F. 21/51 (U.K.) of 6.11.51. Use of the word "Butter" in the description of Confectionery.
- S.I. 2240 of 19.12.51. Food Standards (Edible Gelatine) (Commencement) Order, 1951.
- S.I. 2241 of 19.12.51. Food Standards (Fish Paste) (Amendment) Order, 1951.
- S.I. 2242 of 19.12.51. Food Standards (Meat Paste) (Amendment) Order, 1951.

#### *Housing—*

- S.I. 774/45 of 27.4.51. Housing (Forms) (Scotland) Regulations, 1951.
- D.H.S. Circ. 53/1951 of 9.5.51. Housing (Forms) (Scotland) Regulations, 1951.
- D.H.S. Circ. 94 of 16.8.51. Low Cost Houses.

#### *Infectious Disease—*

- D.H.S. Circ. 50/1951 of 2.5.51. Diphtheria Immunisation Publicity Campaign.
- S.I. 1036/1951 of 13.6.51. Public Health (Leprosy) Regulations, 1951.
- S.I. 1414 (S.73) of 1.8.51. Infectious Diseases (Scotland) Amendment Regulations, 1951.
- D.H.S. Circ. 87/1951 of 10.8.51. Compulsory Notification of Leprosy.

#### *Maternity and Child Welfare—*

- S.I. 591 of 4.4.51. Midwives. Central Midwives Board for Scotland (Amendment) Rules, 1951. Approved Instrument.
- D.H.S. Circ. 121/1951 of 21.11.51. Defence Regulations. Supply of Midwives Revocation of Regulation 33.

#### *Meat Inspection—*

- Public Health (Imported Food) (Scotland) Regulations, 1937 to 1948.
- D.H.S. Circ. Foods 316889 of 26.2.51. Official Certificate. Federal Republic of Austria.
- D.H.S. Circ. Foods 308673 of 29.3.51. Official Certificate. Cyprus.
- D.H.S. Circ. Foods 306671 of 4.7.51. Official Certificate. Republic of Portugal.
- D.H.S. Circ. FIF/1/Luxe of 10.8.51. Official Certificate. Grand Duchy of Luxembourg.
- D.H.S. Circ. FIF/1/Ital of 6.9.51. Official Certificate. Republic of Italy.

*Milk—*

- D.H.S. Circ. 15/1951 of 6.2.51. Scottish Milk Testing Scheme. Weekly Tests.
- S.I. 644 (S.31) of 11.4.51. Milk (Special Designations) (Scotland) Order, 1951.

*National Assistance—*

- S.I. 174/1951 of 8.2.51. Adaptation of Enactments Regulations, 1950.
- D.H.S. Circ. 8/1951 of 23.2.51. Adaptation of Enactments Regulations, 1950.
- S.I. 1305 of 19.7.51. Determination of Need (Amendment) Regulations (Scotland) 1951.
- D.H.S. Circ. 95 of 10.8.51. National Assistance (Amendment) Act, 1951.
- S.I. 1580 (S.83) of 25.8.51. Charges for Accommodation (Amendment) Regulations, 1951.

*National Health Service—*

- S.I. 165 (S.6) of 29.1.51. Joint Ophthalmic Services Committee (Scotland) Amendment Order, 1951.
- S.I. 353 (S.15) of 27.2.51. Joint Ophthalmic Services Committee (Scotland) Amendment No. 2 Order, 1951.
- S.I. 524 (S.24) of 28.3.51. General Medical and Pharmaceutical Services (Scotland) Amendment Regulations, 1951.
- S.I. 733 (S.37) of 23.4.51. Travelling Allowances, etc. (Scotland) Amendment Regulations, 1951.
- S.I. 825 (S.48) of 8.5.51. Local Health Authorities Estimation of Expenditure (Scotland) Amendment Regulations, 1951.
- S.I. 861 (S.50) of 11.5.51. General Dental and Supplementary Ophthalmic Services (Scotland) Regulations, 1951.
- S.I. 862 (S.51) of 11.5.51. Charges for Appliances (Scotland) Regulations, 1951.
- S.I. 1147 (S.61) of 27.6.51. Superannuation (Scotland) Amendment Regulations, 1951.
- S.I. 1464 (S.75) of 7.8.51. Local Health Authority Charges (Scotland) Amendment Regulations, 1951.
- S.I. 1465 (S.76) of 7.8.51. Remuneration and Conditions of Service (Scotland) Regulations, 1951.
- S.I. 1763 (S.87) of 3.10.51. Qualifications for Supplementary Ophthalmic Services (Scotland) Amendment Regulations, 1951.
- S.I. 1765 (S.90) of 3.10.51. General Medical and Pharmaceutical Services (Scotland) (Amendment No. 2) Regulations, 1951.

*National Insurance—*

- S.I. 305/1951 of 26.2.51. National Insurance (Industrial Injuries) (Prescribed Diseases) Amendment Regulations, 1951.
- S.I. 306/1951 of 26.2.51. National Insurance (Industrial Injuries) (Prescribed Diseases) Amendment No. 2.

*Nurses—*

D.H.S. Memo. 16/1951 of 2.2.51. Senior Grades of Public Health and Domiciliary Nurses and Midwives.

S.I. 1331 (S.68) of 23.7.51. Nurses (Regional Nurse-Training Committees) (Scotland) Order, 1951.

D.H.S. Circ. 93/1951 of 20.8.51. Midwives (Scotland) Act, 1951, and Nurses (Scotland) Act, 1951.

*Public Health—*

S.I. 957 of 31.5.51. Prevention of Damage by Pests Act, 1949.

S.I. 1759 of 1.10.51. Hydrogen Cyanide (Fumigation of Buildings) Regulations, 1951.

S.I. 1760 of 1.10.51. Hydrogen Cyanide (Fumigation of Ships) Regulations, 1951.

S.I. 1846 of 18.10.51. Rag Flock and Other Filling Materials Regulations 1951.

D.H.S. Circ. 119/1951 of 12.11.51. Dogs in Food Shops and Restaurants.

S.I. 2307 (S.114) of 27.12.51. Parrots (Prohibition of Import) (Revocation) (Scotland) Regulations, 1951.

## APPENDIX

TABLE I.—GLASGOW, 1951.—ESTIMATED POPULATION IN EACH MUNICIPAL WARD, ACREAGE, AND PERSONS PER ACRE.

MUNICIPAL WARDS	POPULATION				Acreage	Persons per acre (including Inst'tutions and Shipping)
	Without Institutions and Shipping	Institu- tions*	Shipping	Total		
1. Shettleston and Tollcross ...	42,420	189	—	42,609	1,167	37
2. Parkhead ...	21,001	577	—	21,578	819	26
3. Dalmarnock ...	40,593	28	—	40,621	487	83
4. Calton ...	24,814	1,459	—	26,273	404	65
5. Mile-end ...	39,816	355	—	40,171	443	90
6. Dennistoun ...	26,908	36	—	26,944	689	39
7. Provan ...	22,482	1,753	—	24,235	4,846	5
8. Cowlairs ...	26,757	1,241	—	27,998	645	43
9. Springburn ...	32,850	2,799	—	35,649	2,118	17
10. Townhead ...	32,914	2,091	—	35,005	301	116
11. Exchange ...	16,354	3,717	18	20,089	507	40
12. Anderston ...	28,701	1,395	806	31,902	530	60
13. Park ...	23,283	475	—	23,758	317	75
14. Cowcaddens ...	26,746	482	1	27,229	488	56
15. Woodside ...	26,322	624	—	26,946	170	158
16. Ruchill ...	45,157	770	2	45,929	1,962	23
17. North Kelvin	25,743	74	—	25,817	278	93
18. Maryhill ...	24,187	1,324	4	25,515	2,210	12
19. Kelvinside ...	19,679	1,353	—	21,032	1,160	18
20. Partick (East)	22,430	946	—	23,376	351	67
21. Partick (West)	26,691	—	123	26,814	464	58
22. Whiteinch ...	22,884	344	13	23,241	894	26
23. Yoker ...	29,950	248	—	30,198	1,213	25
24. Knightswood	17,271	259	—	17,530	1,614	11
25. Hutchesontown	30,919	46	—	30,965	387	80
26. Gorbals ...	36,379	269	—	36,648	252	145
27. Kingston ...	26,541	191	163	26,895	355	76
28. Kinning Park	27,751	128	245	28,124	402	70
29. Govan ...	34,871	281	—	35,152	489	72
30. Fairfield ...	23,565	1,463	104	25,132	1,351	19
31. Craigton ...	40,132	316	—	40,448	1,566	26
32. Pollokshields	37,716	2,240	—	39,956	3,239	12
33. Camphill ...	22,397	132	—	22,529	481	47
34. Pollokshaws ...	39,268	449	—	39,717	3,223	12
35. Govanhill ...	25,934	443	—	26,377	365	72
36. Langside ...	24,535	1,043	—	25,578	801	32
37. Cathcart ...	21,665	122	—	21,787	2,737	8
CITY ...	1,058,626	29,662	1,479	1,089,767	39,725	27

\* Includes squatters.

*Ward Populations.* -By courtesy of the Registrar General preliminary figures were supplied, giving the number of persons enumerated in each municipal ward, and this made it possible to complete the various statistical tables. These populations are now confirmed in the final report and are as given in Table I of the Appendix. As, however, information was not then available on the institution and harbour populations, the usual local returns as at 30th June were used in respect of institutions and the figure for the harbour population is that shown in previous years. The house population therefore is not that of the Census

TABLE II.—GLASGOW, 1951.—INHABITED AND UNOCCUPIED HOUSES  
IN EACH MUNICIPAL WARD. †

MUNICIPAL WARDS	INHABITED HOUSES*				Empty Houses
	1951	1950	Decrease	Increase	
1. Shettleston and Toll- cross... ..	11,048	11,030	—	18	7
2. Parkhead ... ..	5,834	5,843	9	—	3
3. Dalmarnock ... ..	12,244	12,276	32	—	12
4. Calton... ..	7,110	7,138	28	—	30
5. Mile-end ... ..	11,412	11,425	13	—	18
6. Dennistoun ... ..	8,310	8,282	—	28	39
7. Provan ... ..	5,663	5,368	—	295	11
8. Cowlairs ... ..	8,156	8,183	27	—	17
9. Springburn ... ..	7,987	7,590	—	397	25
10. Townhead ... ..	9,785	9,821	36	—	30
11. Exchange ... ..	4,696	4,802	106	—	25
12. Anderston ... ..	8,454	8,502	48	—	31
13. Park ... ..	6,545	6,564	19	—	83
14. Cowcaddens ... ..	7,652	7,665	13	—	11
15. Woodside ... ..	8,078	8,190	112	—	26
16. Ruchill ... ..	10,869	10,487	—	382	29
17. North Kelvin ... ..	8,400	8,432	32	—	51
18. Maryhill ... ..	6,954	6,992	38	—	18
19. Kelvinside ... ..	7,020	7,088	68	—	105
20. Partick (East) ... ..	7,326	7,441	115	—	107
21. Partick (West) ... ..	8,673	8,596	—	77	31
22. Whiteinch ... ..	6,869	6,877	8	—	16
23. Yoker ... ..	7,887	7,733	—	154	9
24. Knightswood ... ..	4,378	4,382	4	—	4
25. Hutchesontown ... ..	9,612	9,661	49	—	10
26. Gorbals ... ..	9,367	9,420	53	—	25
27. Kingston ... ..	7,385	7,422	37	—	12
28. Kinning Park ... ..	8,191	8,213	22	—	26
29. Govan... ..	9,190	9,196	6	—	25
30. Fairfield ... ..	6,723	6,734	11	—	15
31. Craigton ... ..	10,632	10,634	2	—	25
32. Pollokshields ... ..	9,026	8,002	—	1,024	46
33. Camphill ... ..	7,951	7,959	8	—	43
34. Pollokshaws ... ..	9,026	7,517	—	1,509	10
35. Govanhill ... ..	8,457	8,461	4	—	18
36. Langside ... ..	8,018	8,049	31	—	37
37. Cathcart ... ..	7,063	7,063	—	—	14
CITY ... ..	301,991	299,038	—	2,953	1,044

\* Includes inhabitant occupiers. † Annual Return of the City Assessor.



TABLE III.—GLASGOW.—LININGS GRANTED BY DEAN OF GUILD COURT  
IN YEARS FROM 1919 IN RESPECT OF HOUSES.

Year ending 31st August.	NUMBER OF APARTMENTS.						TOTAL.
	1.	2.	3.	4.	5.	6.	
1919-20 (Annual Average)	—	6	692	246	107	29	1,080
1921-25 (do.)	—	308	638	400	234	51	1,631
1926-30 (do.)	—	350	3,067	1,346	448	90	5,301
1931-35 (do.)	13	349	2,287	1,578	131	23	4,381
1936-39 (do.)	—	—	1,581	2,140	533	24	4,279
1940-43	—	—	—	—	—	—	—
1944	36	—	—	5	1	—	42
1945	—	—	79	94	5	—	178
1946	33	—	812	2,503	483	12	3,843
1947	—	89	115	994	232	—	1,430
1948	54	24	126	365	2	—	571
1949	86	—	780	1,186	13	—	2,065
1950	72	187	1,738	3,513	260	5	5,775
1951	10	174	3,497	2,881	287	—	6,849

TABLE IV.—ABSTRACT OF METEOROLOGICAL OBSERVATIONS TAKEN AT  
SPRINGBURN PUBLIC PARK.

MONTHS.	TEMPERATURE.			RAINFALL.		SUNSHINE. Hours.
	Highest Temp. in Shade.	Lowest Temp. in Shade.	Mean Temp.	No. of Days.	Amount Collected in inches.	
1951.						
January ...	49	25	36·5	25	5·23	23·1
February ...	49	25	35·7	20	2·70	49·9
March ...	52	21	37·5	20	2·82	63·9
April ...	57	27	42·2	17	2·11	149·2
May ...	70	32	48·5	11	1·81	213·9
June ...	81	40	56·1	13	2·27	181·7
July ...	71	44	58·4	16	4·21	144·0
August ...	72	42	56·8	20	4·37	95·3
September ...	71	39	55·1	17	3·31	108·0
October ...	65	30	49·7	12	·97	89·2
November ...	52	30	44·6	24	6·01	34·9
December ...	52	23	40·3	26	5·65	29·1
1939 ...	88	18	47·6	212	38·41	1,177
1940 ...	85	6	46·5	210	39·52	1,111
1941 ...	80	12	46·3	204	33·34	1,035
1942 ...	80	18	46·3	220	40·64	1,067
1943 ...	86	23	48·0	252	45·43	1,094
1944 ...	80	21	47·3	231	44·44	953
1945 ...	81	11	48·6	233	43·62	1,199
1946 ...	77	19	47·3	222	39·93	1,220
1947 ...	86	8	46·7	209	38·63	1,086
1948 ...	85	25	48·1	233	53·33	1,157
1949 ...	84	19	49·3	222	43·20	1,310
1950 ...	88	18	46·7	226	45·37	1,181
1951 ...	81	21	46·8	221	41·46	1,182

TABLE V.—GLASGOW.—BIRTHS AND BIRTH-RATES *per Million* IN EACH WARD FOR THE YEAR 1951, AND NUMBER AND PERCENTAGE OF ILLEGITIMATE BIRTHS.

MUNICIPAL WARDS.	Births 1951	Birth- rate 1951	Birth- rate 1950*	Illegitimate Births	
				No.	% Total Births.
1. Shettleston and Tollcross ...	836	19,708	19,687	40	4.8
2. Parkhead ...	409	19,475	19,195	13	7.0
3. Dalarnock ...	967	23,822	20,684	45	4.6
4. Calton ...	558	22,487	21,821	36	6.4
5. Mile-end... ..	881	22,127	22,427	31	3.5
6. Dennistoun ...	426	15,832	15,957	22	5.2
7. Provan ...	350	15,568	18,417	43	12.3
8. Cowlares ...	513	19,173	19,264	16	3.1
9. Springburn ...	564	17,169	20,240	29	5.1
10. Townhead ...	795	24,154	22,602	46	5.8
11. Exchange ...	373	22,808	19,855	38	10.2
12. Anderston ...	639	22,264	19,630	38	5.9
13. Park ...	390	16,750	16,295	35	9.0
14. Cowcaddens ...	608	22,732	21,273	29	4.8
15. Woodside ...	590	22,415	20,622	37	6.3
16. Ruchill ...	808	17,893	20,124	40	4.9
17. North Kelvin ...	505	19,617	18,195	26	5.1
18. Maryhill ...	483	19,969	19,202	23	4.8
19. Kelvinside ...	237	12,043	12,501	4	1.7
20. Partick (East) ...	336	14,980	15,497	14	4.2
21. Partick (West) ...	514	19,258	18,243	22	4.3
22. Whiteinch ...	374	16,343	16,530	15	4.0
23. Yoker ...	381	12,721	12,898	18	4.7
24. Knightswood ...	208	12,043	14,544	9	4.3
25. Hutchesontown... ..	760	24,580	23,204	36	4.7
26. Gorbals ...	1,003	27,571	24,387	103	10.3
27. Kingston ...	673	25,357	22,341	38	5.6
28. Kinning Park ...	630	22,702	21,162	27	4.3
29. Govan ...	793	22,741	22,393	36	4.5
30. Fairfield ...	443	18,799	19,907	14	3.2
31. Craigton ...	520	12,957	14,215	15	2.9
32. Pollokshields ...	500	13,257	16,346	18	3.6
33. Camphill ...	259	11,564	11,792	4	1.5
34. Pollokshaws ...	724	18,437	21,073	35	4.8
35. Govanhill ...	432	16,658	16,054	15	3.5
36. Langside ...	305	12,431	12,514	9	3.0
37. Cathcart ...	236	10,893	11,260	—	—
Institutions ...	68	—	—	42	61.7
Harbour ...	—	—	—	—	—
CITY ...	20,091	18,436	18,380	1,061	5.3

\* Revised rates following adjustment of intercensal populations (1931-1951).

TABLE VI.—GLASGOW.—DEATHS AND DEATH-RATES *per Million* IN EACH MUNICIPAL WARD, FOR THE YEAR 1951, AND CORRESPONDING RATES FOR 1950 AND 1949.

MUNICIPAL WARDS.	Deaths 1951	Death-rates		
		1951	1950*	1949*
1. Shettleston and Tollcross ...	507	11,952	11,759	12,693
2. Parkhead ... ..	248	11,809	13,107	13,856
3. Dalmarnock ... ..	522	12,859	11,916	12,740
4. Calton ... ..	362	14,589	13,704	15,693
5. Mile-end ... ..	483	12,131	11,675	11,373
6. Dennistoun ... ..	406	15,088	13,967	13,994
7. Provan ... ..	288	12,810	14,911	14,596
8. Cowlairs ... ..	361	13,492	12,005	12,189
9. Springburn ... ..	327	9,954	12,067	11,792
10. Townhead ... ..	431	13,095	13,642	13,416
11. Exchange ... ..	258	15,776	14,967	12,923
12. Anderston ... ..	420	14,634	13,245	13,938
13. Park ... ..	358	15,376	14,882	13,921
14. Cowcaddens ... ..	340	12,712	10,982	12,599
15. Woodside ... ..	362	13,753	12,769	12,548
16. Ruchill ... ..	536	11,870	11,691	12,928
17. North Kelvin ... ..	320	12,431	12,796	12,802
18. Maryhill ... ..	305	12,610	12,774	12,249
19. Kelvinside ... ..	282	14,330	15,245	15,214
20. Partick (East) ... ..	340	15,158	14,444	13,793
21. Partick (West) ... ..	357	13,375	12,668	12,467
22. Whiteinch ... ..	308	13,459	12,871	12,496
23. Yoker ... ..	327	10,918	11,015	11,591
24. Knightswood ... ..	203	11,754	11,548	11,346
25. Hutchesontown ... ..	385	12,452	11,646	12,465
26. Gorbals ... ..	446	12,260	12,369	12,808
27. Kingston ... ..	361	13,602	10,849	11,346
28. Kinning Park ... ..	346	12,468	10,447	11,437
29. Govan ... ..	434	12,446	11,142	10,609
30. Fairfield ... ..	271	11,500	12,319	13,088
31. Craigton ... ..	480	11,961	11,152	11,407
32. Pollokshields ... ..	372	9,863	13,304	12,426
33. Camphill ... ..	362	16,163	16,834	14,048
34. Pollokshaws ... ..	370	9,422	10,969	11,065
35. Govanhill ... ..	350	13,496	12,947	13,110
36. Langside ... ..	380	15,488	14,967	13,858
37. Cathcart ... ..	316	14,586	15,278	13,230
Institutions ... ..	787	—	—	—
Harbour ... ..	1	—	—	—
CITY ... ..	14,312	13,133	12,929	13,022

\* Rates revised following adjustment of intercensal populations (1931-1951).

TABLE VII.—GLASGOW.—NUMBER OF OUTWARD AND INWARD TRANSFER DEATHS FOR THE YEAR 1951.

No.	CAUSE OF DEATH.	Outward Transfers.	Inward Transfer
1	Tuberculosis of Respiratory System ... ..	32	57
2	Tubercular Meningitis ... ..	11	4
51	Abdominal Tuberculosis ... ..	3	2
52	Other Tuberculous Diseases ... ..	10	—
3	Syphilis and its Sequelae ... ..	8	7
4	Typhoid Fever ... ..	—	—
6	Dysentery, all forms ... ..	1	—
7	Scarlet Fever and Streptococcal Sore Throat ... ..	—	—
8	Diphtheria ... ..	1	—
9	Whooping Cough ... ..	—	1
10	Meningococcal Infections ... ..	—	—
12	Acute Poliomyelitis ... ..	2	—
14	Measles ... ..	1	—
17	Other Infective and Parasitic Diseases ... ..	6	2
18	Malignant Neoplasms, including Neoplasms of Lymphatic and Haematopoietic Tissues ... ..	384	82
19	Benign and Unspecified Neoplasms ... ..	9	15
20	Diabetes Mellitus ... ..	24	9
21	Anaemias ... ..	9	1
22	Vascular Lesions affecting Central Nervous System ... ..	152	81
23	Non-meningococcal Meningitis ... ..	1	4
24	Rheumatic Fever ... ..	2	3
25	Chronic Rheumatic Heart Disease ... ..	37	8
26	Arteriosclerotic and Degenerative Heart Disease ... ..	188	176
27	Other Diseases of Heart... ..	19	18
28	Hypertension with Heart Disease ... ..	16	5
29	Hypertension without mention of Heart ... ..	24	6
30	Influenza ... ..	1	—
31	Pneumonia (except Pneumonia of Newborn) ... ..	58	22
32	Bronchitis ... ..	28	17
53	Other Respiratory Diseases ... ..	21	4
33	Ulcer of Stomach and Duodenum ... ..	49	8
34	Appendicitis ... ..	14	—
35	Intestinal Obstruction and Hernia ... ..	40	2
36	Gastritis and Duodenitis ... ..	—	—
	Enteritis } Under 2 years (except Diarrhoea of Newborn)... ..	10	1
	& Colitis } 2 years and over ... ..	14	—
37	Cirrhosis of Liver ... ..	7	2
38	Nephritis and Nephrosis ... ..	25	10
39	Hyperplasia of Prostate ... ..	26	1
40	Complications of Pregnancy, Childbirth and the Puerperium ... ..	1	—
41	Congenital Malformations ... ..	39	7
42	Birth Injuries, Post-natal Asphyxia and Atelectasis ... ..	30	10
43	Infections of the Newborn—Pneumonia ... ..	12	2
	"    "    Diarrhoea ... ..	—	—
	"    "    Others ... ..	—	—
44	Other Diseases peculiar to early infancy and Immaturity Unqualified ... ..	29	10
45	Senility without mention of Psychosis, Ill-defined and Unknown Causes ... ..	29	27
46	All Other Diseases ... ..	174	57
47/50	Suicide, Road Traffic Accidents and Other Violent Causes ... ..	106	55
16	Malaria ... ..	1	—
	TOTAL ... ..	1,654	716



TABLE VIII.—GLASGOW.—DEATHS AND DEATH-RATES *per Million* FROM DIFFERENT CAUSES, FOR THE YEAR 1951, AND CORRESPONDING RATES FOR \*1950 AND \*1949.

No.	CAUSE.	Deaths 1951	Annual Death Rate per Million.		
			1951	†1950	*1949
1	Tuberculosis of Respiratory System ... ..	694	637	874	1,028
2	Tubercular Meningitis ... ..	58	53	64	86
51	Abdominal Tuberculosis ... ..	11	10	9	11
52	Other Tuberculous Diseases ... ..	29	27	45	32
3	Syphilis and its Sequelae ... ..	40	37	46	46
4	Typhoid Fever ... ..	1	1	—	1
6	Dysentery, all forms ... ..	4	4	5	*
7	Scarlet Fever and Streptococcal Sore Throat ... ..	1	1	1	3
8	Diphtheria ... ..	4	4	—	5
9	Whooping Cough ... ..	25	23	12	19
10	Meningococcal Infections ... ..	15	14	12	8
12	Acute Poliomyelitis ... ..	2	2	9	1
14	Measles ... ..	7	6	14	7
17	Other Infective and Parasitic Diseases ... ..	41	38	42	*
18	Malignant Neoplasms, including Neoplasms of Lymphatic and Haematopoietic Tissues ... ..	2,181	2,002	2,006	*1,975
19	Benign and Unspecified Neoplasms ... ..	107	98	128	*
20	Diabetes Mellitus ... ..	106	97	97	*156
21	Anaemias ... ..	70	64	65	*
22	Vascular Lesions affecting Central Nervous System ... ..	1,833	1,681	1,630	*1,254
23	Non-meningococcal Meningitis ... ..	18	17	11	*
24	Rheumatic Fever ... ..	27	25	26	*
25	Chronic Rheumatic Heart Disease ... ..	237	217	207	* 3,694
26	Arteriosclerotic and Degenerative Heart Disease ... ..	3,442	3,158	2,930	
27	Other Diseases of Heart ... ..	228	209	177	
28	Hypertension with Heart Disease ... ..	213	195	186	
29	Hypertension without mention of Heart ... ..	145	133	149	*
30	Influenza ... ..	183	168	52	*120
31	Pneumonia (except Pneumonia of Newborn) ... ..	528	485	467	*558
32	Bronchitis ... ..	740	679	639	*297
53	Other Respiratory Diseases ... ..	118	108	126	*130
33	Ulcer of Stomach and Duodenum ... ..	129	118	113	*114
34	Appendicitis ... ..	27	25	35	*28
35	Intestinal Obstruction and Hernia ... ..	79	72	68	*
36	Gastritis and Duodenitis ... ..	3	3	13	*
	Enteritis and Colitis—				
	Under 2 years (excluding Diarrhoea of Newborn) ... ..	58	53	74	*162
	2 years and over ... ..	53	49	39	*
37	Cirrhosis of Liver ... ..	45	41	42	*
38	Nephritis and Nephrosis ... ..	138	127	124	*191
39	Hyperplasia of Prostate ... ..	67	61	65	*
40	Complications of Pregnancy, Childbirth and the Puerperium ... ..	20	18	16	*29
41	Congenital Malformations ... ..	137	126	127	*522
42	Birth Injuries, Post-natal Asphyxia and Atelectasis ... ..	199	183	182	
43	Infections of the Newborn—Pneumonia ... ..	54	50	26	
	Do. do. Diarrhoea ... ..	9	8	11	
	Do. do. Others ... ..	2	2	2	
44	Other Diseases peculiar to early infancy and Immaturity Unqualified	198	182	173	
45	Senility without mention of Psychosis, ill-defined and Unknown				
	Causes ... ..	535	491	491	*
46	All Other Diseases ... ..	884	811	787	*
7/50	Suicide, Road Traffic Accidents and Other Violent Causes ... ..	567	520	504	502
13	Smallpox ... ..	—	—	5	—
	Total ... ..	14,312	13,133	12,926	13,027

\* Accurate comparison not possible owing to alterations made in the Rules of International Classification of Death (Text).

† The rates for 1950 and 1949 have been recalculated, the intercensal estimates of population having been revised following the 1951 Census.



TABLE IX.—GLASGOW, 1951.—DEATHS FROM DIFFERENT CAUSES IN SEXES AND AT SEVERAL AGE PERIODS (MALES).

No.	CAUSE	-1	-2	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75+	Total
1	Tuberculosis of Respiratory System ...	1	4	2	—	2	12	25	56	69	89	107	52	19	429
2	Tubercular Meningitis ...	1	5	11	9	3	3	—	—	—	1	—	—	—	38
51	Abdominal Tuberculosis ...	1	—	—	1	—	1	—	—	1	—	1	—	—	5
52	Other Tuberculous Diseases ...	—	—	—	—	—	1	4	1	—	1	3	3	1	4
3	Syphilis and its Sequelae ...	1	—	—	—	1	—	—	—	3	—	8	8	3	24
4	Typhoid Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6	Dysentery, all forms ...	1	—	—	—	—	—	—	—	—	—	—	1	—	2
7	Scarlet Fever and Streptococcal Sore Throat ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8	Diphtheria ...	—	—	—	2	—	—	—	—	—	—	—	—	—	2
9	Whooping Cough ...	9	—	1	—	—	—	—	—	—	—	—	—	—	10
10	Meningococcal Infections ...	3	3	1	1	—	—	—	—	—	—	—	—	—	10
12	Acute Poliomyelitis ...	—	—	—	—	—	—	—	1	—	—	—	—	—	1
14	Measles ...	1	1	2	—	—	—	—	—	—	—	—	—	—	4
17	Other Infective and Parasitic Diseases ...	2	—	—	—	—	—	—	—	2	4	4	—	—	12
18	Malignant Neoplasms, including Neoplasms of Lymphatic and Haematopoietic Tissues ...	—	1	2	6	3	3	6	27	57	188	304	343	215	1,155
19	Benign and Unspecified Neoplasms ...	—	—	1	—	—	1	1	5	4	9	17	16	8	62
20	Diabetes Mellitus ...	—	—	—	—	—	—	—	2	3	8	5	13	5	36
21	Anaemias ...	—	—	—	—	—	—	—	—	1	—	5	6	11	23
22	Vascular Lesions affecting Central Nervous System ...	2	—	—	—	—	1	1	4	12	40	136	315	325	836
23	Non-meningococcal Meningitis ...	6	3	1	—	—	—	—	—	1	—	1	—	—	12
24	Rheumatic Fever ...	—	—	—	1	—	—	—	3	2	1	2	—	—	9
25	Chronic Rheumatic Heart Disease ...	—	—	—	—	—	3	4	7	19	12	17	12	7	81
26	Arteriosclerotic and Degenerative Heart Disease ...	—	—	—	—	—	—	5	9	50	183	388	581	624	1,854
27	Other Diseases of Heart ...	—	—	—	—	—	—	—	3	2	9	23	49	28	105
28	Hypertension with Heart Disease ...	—	—	—	—	—	—	—	—	2	6	27	39	26	100
29	Hypertension without mention of Heart ...	—	—	—	—	—	—	—	—	1	6	12	27	35	81
30	Influenza ...	2	—	—	—	—	1	1	—	3	7	17	19	29	72
31	Pneumonia (except Pneumonia of Newborn) ...	46	8	6	—	1	2	—	4	6	25	44	71	69	281
32	Bronchitis ...	11	1	1	—	—	1	1	5	13	69	146	150	164	502
53	Other Respiratory Diseases ...	5	1	1	—	—	—	—	1	5	11	19	17	18	78
33	Ulcer of Stomach and Duodenum ...	—	—	—	—	—	—	—	5	13	23	21	30	11	103
34	Appendicitis ...	—	—	—	1	1	—	1	—	2	3	1	3	2	15
35	Intestinal Obstruction and Hernia ...	5	—	—	1	—	—	1	—	1	6	11	6	7	38
	Gastritis and Duodenitis ...	1	—	1	—	—	—	—	—	—	—	—	—	—	2
	Enteritis and Colitis—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
36	Under 2 years (excluding Diarrhoea of Newborn) ...	31	2	—	—	—	—	—	—	—	—	—	—	—	33
	2 years and over ...	—	—	1	1	—	—	—	1	2	1	3	6	5	20
37	Cirrhosis of Liver ...	—	—	—	—	1	1	—	1	3	8	5	7	1	27
38	Nephritis and Nephrosis ...	2	—	—	1	—	1	1	4	6	10	8	13	9	58
39	Hyperplasia of Prostate ...	—	—	—	—	—	—	—	—	—	—	4	23	40	67
40	Complications of Pregnancy, Childbirth and the Puerperium ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
41	Congenital Malformations ...	59	3	3	1	2	—	—	—	2	—	1	—	—	71
42	Birth Injuries, Post-natal Asphyxia and Atelectasis ...	114	—	—	—	—	—	—	—	—	—	—	—	—	114
43	Infections of the Newborn—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Pneumonia ...	31	—	—	—	—	—	—	—	—	—	—	—	—	31
	Diarrhoea ...	6	—	—	—	—	—	—	—	—	—	—	—	—	6
	Others ...	1	—	—	—	—	—	—	—	—	—	—	—	—	1
44	Other Diseases peculiar to early infancy and Immaturity Unqualified ...	106	—	—	—	—	1	—	—	—	—	—	—	—	107
45	Senility without mention of Psychosis, Ill-defined and Unknown Causes ...	23	2	1	—	—	—	1	—	4	32	40	59	107	269
46	All other Diseases ...	14	4	3	4	1	2	5	15	25	48	72	100	114	407
47	Suicide, Road Traffic Accidents and other Violent Causes ...	23	1	13	32	6	11	13	28	31	44	41	40	55	338
50		—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Total ...	508	39	52	61	21	45	70	182	345	844	1,493	2,000	1,869	7,529

TABLE IX.—GLASGOW, 1951.—DEATHS FROM DIFFERENT CAUSES  
IN SEXES AND AT SEVERAL AGE PERIODS (FEMALES).

No.	CAUSE	-1	-2	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75+	Total Females.	Total Both Sexes.
1	Tuberculosis of Respiratory System ...	3	6	2	2	2	24	48	61	49	24	23	16	5	265	694
2	Tubercular Meningitis ...	—	8	8	3	1	3	—	1	1	—	—	—	—	25	58
51	Abdominal Tuberculosis ...	—	—	—	—	—	1	—	1	1	1	1	1	—	6	11
52	Other Tuberculous Diseases ...	—	—	—	1	1	1	1	3	2	3	2	1	—	15	29
3	Syphilis and its Sequelae ...	1	—	—	—	—	—	1	—	1	4	2	5	2	16	40
4	Typhoid Fever ...	—	—	—	—	—	—	—	—	—	—	1	—	—	1	1
6	Dysentery, all forms ...	—	—	1	—	—	—	—	—	—	—	1	—	—	2	4
7	Scarlet Fever and Streptococcal Sore Throat ...	—	—	1	—	—	—	—	—	—	—	—	—	—	1	1
8	Diphtheria ...	—	—	2	—	—	—	—	—	—	—	—	—	—	2	4
9	Whooping Cough ...	8	4	2	1	—	—	—	—	—	—	—	—	—	15	25
10	Meningococcal Infections ...	2	2	2	—	—	—	—	—	—	—	—	1	—	7	15
12	Acute Poliomyelitis ...	—	—	—	—	—	—	—	1	—	—	—	—	—	1	2
14	Measles ...	2	1	—	—	—	—	—	—	—	—	—	—	—	3	7
17	Other Infective and Parasitic Diseases ...	1	—	—	—	—	—	—	1	4	7	7	3	6	29	41
18	Malignant Neoplasms, including Neoplasms of Lymphatic and Haematopoietic Tissues ...	—	2	1	—	1	1	5	24	70	145	274	311	192	1026	2181
19	Benign and Unspecified Neoplasms ...	—	—	—	1	—	1	—	3	4	7	8	15	6	45	107
20	Diabetes Mellitus ...	—	—	—	—	—	—	1	1	—	12	14	35	7	70	106
21	Anaemias ...	—	—	1	—	—	—	—	1	1	2	7	18	17	47	70
22	Vascular Lesions affecting Central Nervous System ...	—	—	—	2	1	—	—	3	11	68	167	331	414	997	1833
23	Non-meningococcal Meningitis ...	3	1	—	—	—	—	—	1	—	1	—	—	—	6	18
24	Rheumatic Fever ...	—	—	—	—	2	—	—	4	5	3	2	1	1	18	27
25	Chronic Rheumatic Heart Disease ...	—	—	—	—	2	2	6	14	28	29	33	28	14	156	237
26	Arteriosclerotic and Degenerative Heart Disease ...	—	—	—	—	—	1	2	1	15	67	203	481	832	1602	3442
27	Other Diseases of Heart ...	—	—	—	—	—	—	—	2	6	11	17	49	38	123	228
28	Hypertension with Heart Disease ...	—	—	—	—	—	—	—	—	2	8	22	38	43	113	213
29	Hypertension without mention of Heart ...	—	—	—	—	—	—	—	—	1	3	18	28	14	64	145
30	Influenza ...	5	1	3	—	1	—	—	1	2	2	13	29	47	104	183
31	Pneumonia (except Pneumonia of Newborn) ...	42	5	1	—	2	1	1	5	8	19	26	66	70	246	528
32	Bronchitis ...	3	1	—	—	—	—	—	2	5	20	40	69	98	238	740
53	Other Respiratory Diseases ...	2	—	1	—	—	—	2	1	4	2	9	11	8	40	118
33	Ulcer of Stomach and Duodenum ...	—	—	—	—	—	—	—	—	2	2	4	9	9	26	129
34	Appendicitis ...	—	—	1	1	1	1	—	—	2	—	4	1	1	12	27
35	Intestinal Obstruction and Hernia ...	—	—	—	—	—	—	—	1	1	8	9	13	9	41	79
	Gastritis and Duodenitis ...	—	—	—	—	—	—	—	—	—	1	—	—	—	1	3
36	Enteritis and Colitis— Under 2 years (excluding Diarrhoea of Newborn)	24	1	—	—	—	—	—	—	—	—	—	—	—	25	58
37	2 years and over ...	—	—	1	—	1	1	—	2	2	4	5	10	7	33	53
38	Cirrhosis of Liver ...	—	—	—	—	—	—	—	—	—	5	8	4	1	18	45
39	Nephritis and Nephrosis ...	1	—	2	1	—	2	—	8	9	9	21	19	11	83	138
40	Hyperplasia of Prostate ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	67
	Complications of Pregnancy, Childbirth and the Puerperium ...	—	—	—	—	—	—	1	13	6	—	—	—	—	20	20
41	Congenital Malformations ...	50	—	2	2	1	—	—	1	2	3	3	1	1	66	137
42	Birth Injuries, Post-natal Asphyxia and Atelectasis ...	85	—	—	—	—	—	—	—	—	—	—	—	—	85	199
43	Infections of the Newborn— Pneumonia ...	23	—	—	—	—	—	—	—	—	—	—	—	—	23	54
	Diarrhoea ...	3	—	—	—	—	—	—	—	—	—	—	—	—	3	9
	Others ...	1	—	—	—	—	—	—	—	—	—	—	—	—	1	2
44	Other Diseases peculiar to early infancy and Immaturity Unqualified ...	91	—	—	—	—	—	—	—	—	—	—	—	—	91	198
45	Senility without mention of Psychosis, Ill-defined and Unknown Causes ...	25	1	—	—	—	—	—	1	4	10	30	38	157	266	535
16	All Other Diseases ...	16	6	1	1	6	5	3	6	36	56	84	120	137	477	884
17	Suicide, Road Traffic Accidents and other Violent Causes ...	23	2	7	6	3	2	3	10	14	17	19	45	78	229	567
50																
	Total ...	414	41	39	21	25	46	74	173	298	553	1077	1797	2225	6783	14312

TABLE X.—GLASGOW, 1951.—DEATHS OCCURRING IN INSTITUTIONS FOR THE TREATMENT OF THE SICK, NURSING HOMES, ETC.

No.	CAUSE	General Hospitals and Welfare Institutions.	Fever Hospitals and Sanatoria.	Mental Hospitals.	Voluntary Hospitals.	Nursing Homes.	Totals	% of all Deaths.	Outward Transfer Deaths
1	Tuberculosis of Respiratory System ... ..	115	182	14	—	3	314	45.2	—
2	Tubercular Meningitis ... ..	18	39	—	—	—	57	98.3	—
51	Abdominal Tuberculosis ... ..	7	1	2	—	—	10	99.4	—
52	Other Tuberculous Diseases ... ..	9	11	—	—	1	21	72.4	—
3	Syphilis and its Sequelae ... ..	25	1	6	—	—	32	80.0	—
4	Typhoid Fever ... ..	—	—	1	—	—	1	100.0	—
6	Dysentery, all forms ... ..	1	3	—	—	—	4	100.0	—
7	Scarlet Fever and Streptococcal Sore Throat ... ..	—	1	—	—	—	1	100.0	—
8	Diphtheria ... ..	2	2	—	—	—	4	100.0	—
9	Whooping Cough ... ..	—	22	—	—	—	22	88.6	—
10	Meningococcal Infections ... ..	4	10	—	—	—	14	99.3	—
12	Acute Poliomyelitis ... ..	—	2	—	—	—	2	100.0	2
14	Measles ... ..	—	6	—	—	—	6	85.7	1
17	Other Infective and Parasitic Diseases ... ..	17	3	2	—	—	22	53.6	6
18	Malignant Neoplasms, including Neoplasms of Lymphatic and Haematopoietic Tissues ... ..	857	47	18	7	42	971	44.5	67
19	Benign and Unspecified Neoplasms ... ..	54	3	—	—	—	59	55.1	—
20	Diabetes Mellitus ... ..	39	2	6	—	3	50	47.2	23
21	Anaemias ... ..	27	2	4	1	2	36	51.4	8
22	Vascular Lesions affecting Central Nervous System ... ..	517	25	39	11	51	643	28.5	124
23	Non-meningococcal Meningitis ... ..	11	6	—	—	—	17	94.4	1
24	Rheumatic Fever ... ..	14	2	2	—	—	18	66.7	—
25	Chronic Rheumatic Heart Disease ... ..	107	5	10	6	4	132	55.7	36
26	Arteriosclerotic and Degenerative Heart Disease ... ..	464	23	117	19	96	719	20.9	141
27	Other Diseases of Heart ... ..	65	9	13	—	2	89	39.9	—
28	Hypertension with Heart Disease ... ..	74	3	7	1	6	91	45.1	14
29	Hypertension without mention of Heart ... ..	70	5	1	—	2	78	53.8	—
30	Influenza ... ..	8	5	1	6	6	26	14.2	1
31	Pneumonia (except Pneumonia of Newborn) ... ..	165	114	23	—	8	310	58.7	55
32	Bronchitis ... ..	161	31	19	9	7	227	30.7	25
53	Other Respiratory Diseases ... ..	41	7	7	—	3	58	49.2	2
33	Ulcer of Stomach and Duodenum ... ..	107	—	4	3	—	114	88.4	49
34	Appendicitis ... ..	25	—	—	—	1	26	96.3	14
35	Intestinal Obstruction and Hernia ... ..	68	—	—	—	2	70	88.6	39
36	{ Gastritis and Duodenitis ... ..	—	—	—	—	—	—	—	—
	{ Enteritis) Under 2 years (excluding Diarrhoea of Newborn) ... ..	23	22	—	—	—	45	77.6	9
	{ and Colitis) 2 years and over ... ..	24	3	—	2	—	29	54.7	14
37	Cirrhosis of Liver ... ..	30	1	2	—	1	34	75.5	—
38	Nephritis and Nephrosis ... ..	67	6	4	1	1	79	57.2	25
39	Hyperplasia of Prostate ... ..	55	—	—	—	2	57	85.1	26
40	Complications of Pregnancy, Childbirth and the Puerperium ... ..	14	2	—	—	2	18	90.0	1
41	Congenital Malformations ... ..	77	9	3	1	6	96	70.1	39
42	Birth Injuries, Post-natal Asphyxia and Atelectasis ... ..	125	24	6	—	9	164	82.4	4
43	Infections of the Newborn—Pneumonia ... ..	43	4	1	—	1	49	90.7	12
	Do. Do. —Diarrhoea ... ..	2	2	—	—	1	5	55.5	—
	Do. Do. —Others ... ..	2	—	—	—	—	2	100.0	—
44	Other Diseases peculiar to early infancy and Immaturity Unqualified ... ..	130	15	5	—	10	160	80.8	29
45	Senility without mention of Psychosis, Ill-defined and Unknown Causes ... ..	42	—	11	20	5	78	14.6	19
46	All other Diseases ... ..	415	36	41	6	25	523	59.2	172
47	Suicide, Road Traffic Accidents and other Violent Causes ... ..	238	5	6	1	5	255	45.0	98
50		—	—	—	—	—	—	—	—
13	Smallpox ... ..	—	—	—	—	—	—	—	—
16	Malaria ... ..	—	—	—	—	—	—	—	1
	Total ... ..	4,359	701	375	92	311	5,838	40.8	1,535

TABLE XI.—GLASGOW.—STILLBIRTHS, DEATHS UNDER 1 YEAR AND DEATH-RATES PER 1,000 BIRTHS IN EACH MUNICIPAL WARD, FOR THE YEARS 1950 AND 1951.

MUNICIPAL WARDS	Still- births 1951	Rate per 1,000 Births* 1951	Rate per 1,000 Births* 1950	Deaths —1 year 1951	Death Rate per 1,000 Births† 1951	Death Rate per 1,000 Births† 1950
1. Shettleston and Tollcross ...	26	29	37	43	51	56
2. Parkhead ...	10	24	39	15	37	43
3. Dalmarnock ...	37	37	31	46	48	41
4. Calton ...	13	23	32	29	52	42
5. Mile-end ...	24	27	25	44	50	58
6. Dennistoun ...	13	30	29	24	56	50
7. Provan ...	14	38	41	15	43	37
8. Cowlairs ...	14	27	33	40	78	52
9. Springburn ...	18	31	26	29	51	48
10. Townhead ...	16	20	13	33	42	51
11. Exchange ...	9	24	30	25	67	63
12. Anderston ...	18	27	31	29	45	42
13. Park ...	10	25	20	16	41	46
14. Cowcaddens ...	16	26	36	28	46	34
15. Woodside ...	12	20	18	30	51	46
16. Ruchill ...	31	37	36	32	40	35
17. North Kelvin ...	15	29	33	14	28	53
18. Maryhill ...	20	40	17	26	54	49
19. Kelvinside ...	6	25	12	8	34	20
20. Partick (East)	4	12	24	8	24	30
21. Partick (West)	11	21	32	20	39	41
22. Whiteinch ...	15	39	25	12	32	29
23. Yoker ...	16	40	32	16	42	41
24. Knightswood ...	6	28	41	10	48	43
25. Hutchesontown	25	32	35	35	46	35
26. Gorbals ...	42	40	34	54	54	63
27. Kingston ...	17	25	34	40	59	51
28. Kinning Park	16	25	22	26	41	32
29. Govan ...	20	25	34	33	42	45
30. Fairfield ...	12	26	28	17	38	34
31. Craigton ...	11	21	22	20	38	33
32. Pollokshields ...	9	18	22	21	42	47
33. Camphill ...	4	15	28	7	27	25
34. Pollokshaws ...	25	33	32	41	57	48
35. Govanhill ...	10	23	16	14	32	30
36. Langside ...	8	26	25	10	33	23
37. Cathcart ...	6	25	12	3	13	37
Institutions ...	1	—	—	9	—	—
Harbour ...	—	—	—	—	—	—
CITY ...	580	28	29	922	46	44

\* Live and Stillbirths.

† Live Births.



TABLE XII.—GLASGOW 1951—INFANT DEATHS AT GIVEN AGES AND FROM SEVERAL CAUSES.

CAUSE OF DEATH.	MALES.					FEMALES.					Total —1 year Both Sexes.
	Age in Months.					Age in Months.					
	—1	—3	—6	—9	Total.	—1	—3	—6	—9	Total.	
	—1	—3	—6	—9	Total.	—1	—3	—6	—9	Total.	
I. Congenital Malformations	...	...	...	...	...	...	...	...	...	...	...
II. Diseases of Early Infancy—											
(a) Injury at Birth	...	...	...	...	...	...	...	...	...	...	...
(b) Atelectasis	...	...	...	...	...	...	...	...	...	...	...
(c) Pneumonia of Newborn	...	...	...	...	...	...	...	...	...	...	...
(d) Diarrhoea of Newborn	...	...	...	...	...	...	...	...	...	...	...
(e) Haemolytic Disease of Newborn (Erythroblastosis)	...	...	...	...	...	...	...	...	...	...	...
(f) Congenital Debility, Sclerema and Ill-defined Causes	...	...	...	...	...	...	...	...	...	...	...
(g) Premature Birth	...	...	...	...	...	...	...	...	...	...	...
(h) Others	...	...	...	...	...	...	...	...	...	...	...
III. Diseases of the Respiratory System	...	...	...	...	...	...	...	...	...	...	...
IV. Diseases of Digestive System—											
(a) Diarrhoea	...	...	...	...	...	...	...	...	...	...	...
(b) Others	...	...	...	...	...	...	...	...	...	...	...
V. Diseases of Nervous System	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Diseases—											
(a) Pulmonary Tuberculosis	...	...	...	...	...	...	...	...	...	...	...
(b) Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...
(c) Abdominal Tuberculosis	...	...	...	...	...	...	...	...	...	...	...
(d) Other Forms	...	...	...	...	...	...	...	...	...	...	...
VII. Infectious Diseases—											
(a) Measles	...	...	...	...	...	...	...	...	...	...	...
(b) Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...
(c) Whooping Cough	...	...	...	...	...	...	...	...	...	...	...
(d) Diphtheria	...	...	...	...	...	...	...	...	...	...	...
(e) Erysipelas	...	...	...	...	...	...	...	...	...	...	...
(f) Cerebro-spinal Fever	...	...	...	...	...	...	...	...	...	...	...
(g) Varicella	...	...	...	...	...	...	...	...	...	...	...
(h) Typhoid and Paratyphoid Fevers	...	...	...	...	...	...	...	...	...	...	...
VIII. Syphilis	...	...	...	...	...	...	...	...	...	...	...
IX. Overlying	...	...	...	...	...	...	...	...	...	...	...
X. Other Violences	...	...	...	...	...	...	...	...	...	...	...
XI. All Other Causes	...	...	...	...	...	...	...	...	...	...	...
	296	103	69	92	508	253	83	61	24	414	922



TABLE XIII.—GLASGOW, 1949-1951.—ABSTRACT OF NOTIFICATIONS UNDER NOTIFICATION OF BIRTHS ACT, 1907, AND RESULTS OF VISITS.

	1951	1950	1949
Total Number of Notifications ... ..	20,705	20,845	21,565
Doctor at Home ... ..	5,612	5,419	5,171
Doctor in Nursing Home ... ..	1,336	1,538	1,778
Doctor in Institution ... ..	10,874	10,586	10,500
Maternity Hospital (Outdoor) Nurse ...	790	1,126	1,550
Midwife in Nursing Home ... ..	514	499	532
Certified Midwife ... ..	3	14	29
Municipal Midwife ... ..	1,567	1,655	1,996
Others ... ..	9	8	9
Total Cards issued ... ..	20,705	20,845	21,159
Total Cards returned ... ..	20,830	20,860	20,993
Full Information ... ..	20,449	20,435	20,414
Doctor found in Attendance ... ..	—	—	—
Others ... ..	381	425	579

TABLE XIV.—GLASGOW, 1949-1951.—BIRTHS NOTIFIED SHOWING MEDICALLY AND NOT MEDICALLY ATTENDED.

	1951	1950	1949
Notifications Received— <i>less Duplicates</i> —			
Total ... ..	20,705	20,845	21,565
Live-births ... ..	20,123	20,243	20,932
Still-births ... ..	582	602	633
Per cent. Still-births to Total ... ..	2·8	2·9	2·9
Medically attended—			
Births at Home ... ..	5,612	5,419	5,171
Births in Nursing Home ... ..	1,336	1,538	1,778
In Institutions ... ..	10,874	10,586	10,500
Total ... ..	17,822	17,543	17,449
Per cent. ... ..	86·1	84·1	80·9
Still-births at Home ... ..	104	108	108
Still-births in Nursing Home ... ..	25	30	45
Still-births in Institutions ... ..	419	413	425
Not Medically attended—			
Maternity Hospital, Outdoor Nurse ...	790	1,126	1,550
Certified Midwives in Nursing Home ...	514	499	532
Certified Midwives in Private Practice ...	3	14	29
Municipal Midwives ... ..	1,567	1,655	1,996
Others ... ..	9	8	9
Total ... ..	2,883	3,302	4,116
Per cent. ... ..	14	16	19
Still-births ... ..	34	51	55

TABLE XV.—GLASGOW, 1951 and 1950.—CASES OF INFECTIOUS DISEASE REGISTERED AND NUMBERS OF THESE TREATED IN FEVER HOSPITALS, &amp;c.

	1951				1950			
	Fever Hosp.	Other Institutions	Home	Total	Fever Hosp.	Other Institutions	Home	Total
<b>A.—Notifiable—</b>								
Typhus Fever ...	—	—	—	—	—	—	—	—
Enteric Fever ...	2	—	—	2	4	—	1	5
Paratyphoid B ...	50	—	—	50	11	—	2	13
Continued and Undefined Fever ...	6	—	—	6	2	—	1	3
Puerperal Fever ...	†222	8	1	231	135	17	1	153
Puerperal Pyrexia ...	†48	35	22	105	50	47	15	112
Smallpox ...	—	—	—	—	18	—	—	18
Scarlet Fever ...	1,670	2	619	2,291	1,402	26	471	1,899
Diphtheria and Membranous Croup ...	*131	2	1	134	*84	—	2	*86
Erysipelas ...	102	2	122	226	125	3	154	282
Cholera ...	—	—	—	—	—	—	—	—
Cerebro-spinal Fever ...	123	2	1	126	106	7	2	115
Ophthalmia Neonatorum	21	—	165	186	17	—	157	174
Trachoma ...	—	—	2	2	—	—	5	5
Acute Encephalitis Lethargica ...	1	1	—	2	1	—	—	1
Acute Polio-Encephalitis	1	—	—	1	4	1	—	5
Acute Poliomyelitis ...	51	—	3	54	266	6	12	284
Acute Primary Pneumonia ...	2,122	513	1,074	3,709	2,044	713	779	3,536
Acute Influenzal-Pneumonia ...	4	12	109	125	1	14	26	41
Malaria ...	9	2	3	14	9	—	—	9
Dysentery ...	924	60	566	1,550	1,210	232	930	2,372
Infective Jaundice ...	1	—	—	1	3	—	—	3
Anthrax ...	2	—	—	2	3	—	1	4
Pulmonary Tuberculosis	542	—	1,665	2,207	857	—	1,589	2,446
Other Forms of Tuberculosis ...	100	—	255	355	180	—	189	369
Leprosy ...	—	—	—	—	2	—	—	2
<b>B.—Not Notifiable—</b>								
Measles ...	431	12	3,844	4,287	800	39	5,998	6,837
German Measles ...	31	1	609	641	170	6	3,123	3,299
Whooping-cough ...	462	10	6,800	7,272	360	28	4,995	5,383
Chickenpox ...	243	4	7,806	8,053	162	3	6,839	7,004
Mumps ...	55	—	3	58	18	5	2	25
Pemphigus Neonatorum	11	1	20	32	17	—	3	20
Totals ...	7,365	667	23,690	31,722	8,061	1,147	25,297	34,505
Notified, but diagnosis altered to Non-Infectious Diseases ...	2,580	1	—	2,581	2,550	3	5	2,553
Total Registered ...	9,945	668	23,690	34,303	10,611	1,150	25,302	37,063

Where patients suffer from two or more diseases, each disease is reckoned as a case.

Apart from cases of pneumonia admitted to Corporation General Hospitals and Voluntary Institutions in times of pressure; cases of puerperal fever, puerperal pyrexia, and ophthalmia neonatorum occurring in other than Fever Hospitals and allowed to remain; and cases of trachoma treated in Stobhill Hospital; the cases shown under the headings "Other Institutions" are, for the most part, accidental.

\* Includes Diphtheria Carriers (4 in 1951; 7 in 1950).

† Includes cases treated in Robroyston Hospital.



TABLE XVII.  
OPERATIONS OF SANITARY SECTION.

1. (a) Nuisances.	Central	Northern	Eastern	South-Eastern	South-Western	City	
						1951	1950
INSPECTIONS made—							
Nuisances ... ..	79,616	69,802	109,542	67,574	98,784	425,318	435,397
Bug Disinfestation ... ..	1,699	667	2,074	1,574	389	6,403	6,446
Water Storage Cisterns ... ..	—	15	220	603	—	838	1,063
Limewashings ... ..	4,160	12,081	3,455	4,913	7,261	31,870	30,791
Stair Cleaning ... ..	1,628	2,342	2,610	3,360	4,515	14,455	14,144
Drain Testing ... ..	2,446	3,532	2,384	2,764	2,816	13,942	15,342
Rats and Mice Destruction Acts	5,281	5,566	3,860	9,882	984	25,573	27,388
Total ... ..	94,830	94,005	124,145	90,670	114,749	518,399	530,527
Nuisances removed or remedied	6,737	13,655	10,530	7,761	12,939	51,622	53,085
Consisting of—							
Apartments, Lobbies, or W.C.'s, with insufficient light or ventilation, or otherwise defective in construction ... ..	—	2	—	1	2	5	5
Defective Chimneys causing nuisance ... ..	83	137	69	108	99	496	545
Disrepair or dampness in Dwelling-houses ... ..	717	1,718	1,004	777	1,725	5,941	7,209
Offensive smells from Drains, or other reasonable grounds—smoke test ... ..	—	3	3	—	—	6	3
Drains, Conductors, Soil-pipes, or Pipes choked or defective ... ..	3,233	5,989	4,114	3,480	5,995	22,811	22,738
Sanitary Fittings choked or defective ... ..	349	809	608	577	746	3,089	3,096
Dirty Houses and Bedding and Children ... ..	4	23	1,444	47	27	1,545	1,644
Dirty Closets, Stairs, etc. (daily and bi-weekly cleaning) ... ..	31	174	70	129	135	539	1,016
Houses overcrowded ... ..	—	1,261	818	—	663	2,742	2,684
Common passages, stairs or staircases not in a cleanly state (limewashing or painting) ... ..	1,388	1,345	970	1,199	1,039	5,941	5,058
Animals or Poultry kept so as to be a nuisance ... ..	—	3	1	2	—	6	—
Accumulation of Garbage or Rubbish ... ..	106	129	23	114	81	453	477
Smells from Decaying Animal Matter or other cause ... ..	11	25	3	7	13	59	48
Stagnant Water ... ..	18	8	4	12	35	77	71
Premises infested with Rats or other vermin ... ..	369	707	407	612	335	2,430	2,509
Sink accommodation and Water Supply required ... ..	—	—	—	1	—	1	8
Water-Closet accommodation required ... ..	1	—	—	—	—	1	4
Water Storage Cisterns dirty, uncovered, or unventilated ... ..	1	—	61	3	—	65	766
Water Supply Pipes defective—tenants without water ... ..	78	105	30	68	236	517	384

TABLE XVII.—*Continued.*  
OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South-Eastern	South-Western	City	
						1951	1950
Pit Shaft without adequate protection ... ..	—	—	—	—	—	—	—
Reports to Gas Manager ... ..	1	—	—	1	—	2	1
" Master of Works ... ..	100	600	318	278	973	2,269	2,272
" Superintendent of Cleansing ... ..	5	23	14	8	140	190	241
" Water Engineer ... ..	242	594	569	337	695	2,437	2,254
Prosecutions—Sheriff Court ... ..	2	—	1	3	—	6	11
" Police Court ... ..	1	9	1	—	1	12	19
Number Successful ... ..	3	8	2	3	1	17	28
Amount of Fines ... ..	£50	£4 15 0	—	—	—	£54 15 0	£39 10 0
Number of Rotation Cards for Cleansing of Common Stairs, Lobbies, and W.C.'s served on Tenants ... ..	569	1,289	216	601	795	3,470	8,420
<b>1. (b) Drain Testing.</b>							
Number of Applications for satisfaction of Dean or Guild Court ... ..	201	920	336	777	374	2,608	2,680
Number of first Applications to old Tenements or Systems ... ..	—	6	5	—	1	12	19
Number of these found more or less defective ... ..	—	3	4	—	2	9	8
Subsequent applications to old Tenements or Systems ... ..	—	6	1	—	—	7	9
<b>2. Common Lodging Houses.</b>							
Number measured and registered	—	—	—	—	—	—	—
Total number now on register ... ..	7	4	7	—	3	21	23
With accommodation for ... ..	1,815	1,325	2,220½	—	943	6,303½	6,944½
Number of inspections by day	106	105	334	6	37	588	468
Number of inspections by night	—	—	—	—	—	—	—
Number of irregularities ... ..	5	22	5	9	18	59	58
Number of prosecutions ... ..	—	—	—	—	—	—	—
Amount of Fine ... ..	—	—	—	—	—	—	—
<b>3. Boarding Houses for Emigrants and Seamen.</b>							
Number measured and registered	—	—	—	—	—	—	—
Total number now on register ... ..	3	—	—	—	—	3	5
With accommodation for ... ..	364	—	—	—	—	364	580½
Number of inspections by day	67	—	3	—	—	70	101
Number of inspections by night	—	—	—	—	—	—	—
Number of irregularities ... ..	—	—	—	—	—	—	—
Number of prosecutions .. ..	—	—	—	—	—	—	—



TABLE XVII.—*Continued.*  
OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South-Eastern	South-Western	City	
						1951	1950
<b>4. Houses-Let-in-Lodgings.</b>							
Number measured and registered	—	—	—	—	—	—	—
Total number now on register ...	86	—	—	—	19	105	110
Number of inspections by day	208	—	—	—	23	231	165
Number of inspections by night	—	—	—	—	—	—	—
Number of irregularities ...	3	—	—	—	6	9	32
Number of prosecutions ...	—	—	—	—	—	—	—
Amount of Fines ...	—	—	—	—	—	—	—
<b>5. Farmed-out Houses.</b>							
Number measured and registered	—	—	—	—	—	—	—
Total number now on register ...	78	—	98	—	—	176	176
Number of inspections by day	8	—	331	—	—	339	720
Number of inspections by night	—	—	—	—	—	—	—
Number of irregularities ...	—	—	14	—	—	14	—
Number of prosecutions ...	—	—	—	—	—	—	—
Amount of Fine ...	—	—	—	—	—	—	—
<b>6. Ticketed Houses.</b>							
Number ticketed for first time	—	—	—	—	—	—	—
Total number now on register ...	—	1,025	1,493	—	474	2,992	4,177
Number of visits by day ...	—	—	—	—	—	—	—
Number of inspections by night	—	—	—	—	—	—	—
Number of cases of Overcrowding found and warned ...	—	—	—	—	—	—	—
Number of prosecutions ...	—	—	—	—	—	—	—
<b>7. Tents and Vans.</b>							
Number of inspections ...	7	128	342	40	6	523	430
Number of irregularities ...	—	1	9	—	3	13	14
Number of prosecutions ...	—	—	—	—	—	—	1
<b>8. Mech. Bakehouses.</b>							
Number measured and registered	3	4	5	—	1	13	11
Total number now on register ...	75	63	68	60	38	304	287
Number of inspections ...	246	449	190	122	142	1,149	850
Number dirty ...	39	25	10	8	21	103	104
Number Overcrowded ...	—	—	—	—	—	—	—
Number defective in light or ventilation ...	1	5	2	—	1	9	5
Number with sanitary convenience required ...	—	1	—	—	5	6	2
Number with sanitary fittings choked or defective ...	—	5	5	4	8	22	9
Number of other nuisances ...	9	28	9	6	24	76	54
Number of prosecutions ...	2	—	—	—	—	2	1

TABLE XVII.—*Continued.*  
 OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South-Eastern	South-Western	City	
						1951	1950
<b>9. Non-Mech. Bakehouses.</b>							
Number measured and registered	2	3	2	—	—	7	2
Total number now on register ...	20	43	21	24	16	124	124
Number of inspections ...	68	398	82	54	49	651	433
Number dirty ...	7	24	7	1	3	42	51
Number overcrowded ...	—	—	—	—	—	—	—
Number defective in light or ventilation ...	—	3	—	—	—	3	1
Number with sanitary conveniences required ...	—	—	—	—	—	—	—
Number with sanitary fittings choked or defective ...	—	1	—	1	—	2	—
Number of other nuisances ...	3	36	1	2	1	43	14
Number of prosecutions ...	—	—	—	—	—	—	—
<b>10. Mech. Factories.</b>							
Number registered ...	125	29	62	17	61	294	257
Total number now on register ...	1,664	676	841	517	658	4,356	4,280
Number of inspections ...	1,930	1,814	2,604	950	1,441	8,739	8,297
Number with sanitary conveniences dirty ...	49	34	82	51	99	315	277
Number defective in light or ventilation ...	88	11	23	15	50	187	152
Number with sanitary conveniences required ...	5	—	1	8	8	22	30
Number with sanitary fittings choked or defective ...	12	42	45	16	113	228	230
Number of other nuisances ...	35	27	80	52	137	331	314
Number of prosecutions ...	—	—	—	—	—	—	—
Amount of Fine ...	—	—	—	—	—	—	—
Other parts of factory—							
Number of other nuisances ...	79	24	50	30	15	198	153
<b>11. Non-Mech. Factories.</b>							
Number measured and registered	27	5	7	2	6	47	41
Total number now on register ...	326	38	128	89	108	689	637
Number of inspections ...	410	792	239	300	184	1,925	1,976
Number dirty ...	24	11	10	9	11	65	225
Number overcrowded ...	—	—	—	—	—	—	—
Number defective in light or ventilation ...	11	4	4	5	3	27	25
Number with sanitary conveniences required ...	1	2	1	—	—	4	4
Number with sanitary fittings choked or defective ...	3	5	1	3	2	14	15
Number of other nuisances ...	34	5	7	10	14	70	179
Number of prosecutions ..	—	—	—	—	—	—	—

TABLE XVII.—*Continued*  
 OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South- Eastern	South- Western	City 1951 1950	
12. Shops.							
Number of inspections ... ..	5	766	185	55	1,070	2,981	5,917
Number dirty ... ..	—	3	—	2	14	19	60
Number defective in ventilation, temperature or lighting ... ..	—	1	—	7	18	26	105
Number with sanitary conven- iences required ... ..	1	2	1	11	2	17	23
Number with washing facilities required ... ..	—	—	—	—	—	—	1
Number with sanitary fittings choked or defective ... ..	7	16	1	35	12	71	58
Number of other nuisances ...	120	23	40	123	18	324	304
13. Fish Restaurants.							
Number of inspections ... ..	—	721	8	—	85	814	264
Number dirty ... ..	—	39	—	—	7	46	8
Number defective in light or ventilation ... ..	—	2	—	—	—	2	—
Number requiring sanitary conven- iences ... ..	—	1	—	—	—	1	—
Number with sanitary fittings choked, etc. ... ..	—	9	—	—	—	9	5
Number of other nuisances ...	—	35	2	—	2	39	7
14. Offices.							
Number of inspections ... ..	—	35	—	7	1	43	171
Number dirty ... ..	—	—	—	—	—	—	2
Number defective in light or ventilation ... ..	—	—	—	—	—	—	—
Number with sanitary conven- iences required ... ..	—	—	—	—	—	—	—
Number with washing facilities required ... ..	—	—	—	—	—	—	—
Number with sanitary fittings choked or defective ... ..	2	—	—	—	—	2	—
Number of other nuisances ...	28	—	—	—	—	28	12
15. Homeworkers' Dwellings.							
Total number now on register ...	4	4	23	2	19	52	129
Number of inspections ... ..	—	1	5	1	2	9	199
Number found dirty ... ..	—	—	—	—	—	—	—
16. Bothies, Chaumers.							
Number of inspections ... ..	—	2	—	20	—	22	1
Number dirty ... ..	—	—	—	—	1	1	—
Number of other nuisances ...	1	7	—	—	—	8	—

TABLE XVII.—*Continued.*  
 OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South- Eastern	South- Western	City 1951 1950	
<b>17. Piggeries.</b>							
Total number now on register ...	5	18	23	7	2	55	57
Number of inspections ...	48	73	260	53	6	440	398
Number found dirty ...	—	7	14	5	—	26	30
Number of other nuisances ...	2	12	19	1	—	34	27
Number of prosecutions ...	—	—	—	—	—	—	—
<b>18. Offensive Trades.</b>							
Total number now on register ...	4	5	39	—	4	52	53
Number of inspections ...	—	56	229	—	12	297	343
Number of irregularities ...	—	10	30	—	2	42	49
Number of prosecutions ...	—	—	—	—	—	—	—
<b>19. Rag Flock.</b>							
Total number of visits ...	38	1	20	44	—	103	—
Samples submitted for analysis	—	—	—	—	—	—	—
Certified not to conform to standard ...	—	—	—	—	—	—	—
Number of prosecutions ...	—	—	—	—	—	—	—
Number of convictions ...	—	—	—	—	—	—	—
Amount of fines ...	—	—	—	—	—	—	—
<b>20. Broker's Premises.</b>							
Total number of visits ...	—	38	23	9	14	84	72
Number dirty ...	1	—	1	—	1	3	—
Number of other nuisances ...	2	1	1	2	—	6	1
<b>21. Cemeteries.</b>							
Total number of visits ...	—	2	—	1	—	3	12
<b>22. Civil Defence Property.</b>							
Number of inspections ...	—	347	5	178	—	530	3,778
Number dirty ...	—	—	—	—	—	—	13
Number defective in light or ventilation ...	—	—	—	—	—	—	—
Number with sanitary conven- iences choked, etc. ...	—	1	—	1	—	2	—
Number of other nuisances ...	4	5	—	2	—	11	—

TABLE XVII.—*Continued.*OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South-Eastern	South-Western	City 1951 1950	
<b>23. Infectious Diseases, etc.</b>							
Infectious Diseases, visits ...	11,147	15,977	16,246	13,197	12,126	68,693	80,355
Pre-admissions, Country Homes, visits ... ..	—	—	—	—	—	—	—
Vaccination visits ... ..	2	14	95	15	25	151	281
Institutional census ... ..	20	2	3	—	—	25	47
Whooping Cough Investigations	—	—	—	—	—	—	5,712
<b>24. Housing Acts.</b>							
Total number of visits ... ..	1,968	21,654	2,524	2,469	3,193	31,808	30,285
<b>25. Squatter's Premises.</b>							
Total number of visits ... ..	43	—	574	615	24	1,256	2,067
<b>26. Work of Female Inspectors.</b>							
Under the Glasgow Corporation (Police) Order, 1904—							
<b>(a) Verminous Children.</b>							
Number of visits to schools ...	119	354	387	133	106	1,099	1,131
Number of children submitted for inspection ... ..	12,790	35,359	31,827	9,056	10,582	99,614	105,845
Number of children found infested ... ..	—	19	241	209	4	473	629
Number of children found infected ... ..	3,001	9,842	4,871	1,372	1,055	20,141	20,464
Number of children found with fleas ... ..	—	141	107	40	21	309	257
Number of children found dirty	—	234	758	306	275	1,573	1,564
Number of written notices ...	—	11	160	26	16	213	370
Number of children cleaned by Guardians ... ..	706	2,007	2,584	1,660	902	7,859	8,057
Number of children cleaned by officers ... ..	—	1	49	8	2	60	194
Number of special visits ...	6	5	14	—	—	25	74
Number of children examined	—	—	—	—	—	—	—
Number of children re-inspected	4,619	11,392	12,722	3,528	3,528	35,789	34,307
Number of infectious diseases	—	4	21	—	1	26	37



TABLE XVII.—*Continued.*  
OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South- Eastern	South- Western	City 1951 1950	
(b) Homes of Verminous Children.							
Number of houses inspected ...	270	1,992	1,366	218	635	4,481	5,953
Number of houses in which lodgers were found ...	—	1	—	—	—	1	10
Number of houses found dirty	—	7	6	—	—	13	10
Number of houses with dirty bedding ...	—	2	1	—	—	3	8
Number of written notices ...	—	5	5	—	—	10	25
Number of re-inspections ...	—	11	278	156	—	445	491
Number of houses cleaned ...	—	6	2	2	—	10	10
Number of bedding cleaned ...	—	3	4	—	—	7	4
(c) House-to-House Visitation.							
Number of houses visited first time ...	82	207	169	236	50	744	591
Number of houses in which lodgers were found ...	—	20	—	—	—	20	—
Number of houses found dirty	—	1	11	4	2	18	12
Number of houses with dirty bedding ...	—	—	8	—	1	9	13
Number of houses—Written notices... ..	—	—	19	—	—	19	14
Number of houses—Re-visits...	—	5	25	506	16	552	573
Number of houses found cleaned	—	1	15	2	8	26	18
Number of houses—Bedding found cleaned ...	—	—	4	—	2	6	7
(d) Re-housing Scheme Visitation.							
Number of houses visited first time ...	3,399	25,957	39,229	3,461	7,280	79,326	67,351
Number of houses in which lodgers were found ...	441	3,435	3,280	—	—	7,156	6,335
Number of houses found clean	2,769	15,843	19,138	3,002	5,844	46,596	41,747
Number of houses found fair	630	10,069	19,021	448	1,424	31,592	24,122
Number of houses found dirty	—	45	1,070	11	12	1,138	1,482
Number of houses with dirty bedding ...	—	2	334	3	1	340	394
Number of written notices ...	—	1	1,292	2	—	1,295	1,455
Number of re-visits ...	—	557	1,655	397	16	2,625	2,435
Number of houses found cleaned	—	83	1,142	93	10	1,328	1,346
Number of bedding found cleaned ...	—	18	348	1	—	367	337

TABLE XVII.—*Continued.*  
 OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South- Eastern	South- Western	City	
						1951	1950
(e) Intermediate Housing Scheme Visitation.							
Number of houses visited ...	277	1,104	1,004	213	88	2,686	1,243
Number of houses in which lodgers were found ...	19	86	288	—	—	393	72
Number of houses found clean	85	879	604	164	79	1,811	871
Number of houses found fair...	192	222	330	45	9	798	348
Number of houses dirty ...	—	3	70	4	—	77	24
Number of houses with dirty bedding ...	—	—	5	1	—	6	5
Number of written notices ...	—	—	75	—	—	75	5
Number of re-visits ...	—	12	81	18	—	111	69
Number of houses found cleaned	—	2	69	4	—	75	18
Number of bedding found cleaned ...	—	—	7	1	—	8	3
Number of empty houses visited	—	5	58	3	—	66	81
(f) Other Work.							
Number of nuisances reported by Female Inspectors ...	—	2	92	—	—	94	269
Number of infectious disease cases reported by Female Inspectors ...	—	—	—	—	—	—	8
Cleansing of Persons ...	70	83	3	2	—	158	—

TABLE XVIII.—GLASGOW.—POPULATION; BIRTHS AND DEATHS; BIRTH-RATES AND DEATH-RATES PER 1,000; ALSO DEATHS UNDER 1 YEAR, AND DEATH-RATES PER 1,000 BIRTHS SINCE 1881.

Year	Population	Births	Deaths	Birth-rate per 1,000	Death-rate per 1,000	Deaths under 1 Year	
						Number	Rate per 1,000 Births
1881	512,034	19,106	12,916	37·3	25·2	2,745	144
1891	567,143	19,857	14,324	35·0	25·3	2,946	148
1901	761,925	24,206	16,197	31·8	21·2	3,607	149
1902	762,789	24,722	15,532	32·4	20·4	3,206	129
1903	763,654	25,135	15,073	32·9	19·7	3,663	146
1904	764,521	24,754	15,414	32·4	20·2	3,606	146
1905	765,389	24,316	14,460	31·8	18·9	3,195	131
1906	780,192*	24,560	14,889	31·5	19·1	3,223	131
1907	781,080	24,006	15,659	30·7	20·0	3,116	130
1908	781,969	23,915	15,265	30·6	19·5	3,284	137
1909	782,860	23,140	15,242	29·6	19·5	3,073	133
1910	783,785	22,222	13,395	28·4	17·1	2,694	121
1911	784,680	21,755	13,899	27·7	17·7	3,016	139
1912	785,600	22,044	13,797	28·1	17·6	2,740	124
1913†	1,021,789*	28,688	17,693	28·1	17·3	3,706	129
1914	1,028,440	29,462	17,522	28·6	17·0	3,913	133
1915	1,035,091	27,943	20,159	27·0	19·5	4,007	143
1916	1,041,742	27,094	16,601	26·0	15·9	2,996	111
1917	1,048,393	24,030	16,691	22·9	15·9	3,089	129
1918	1,055,044	23,524	18,362	22·3	17·4	2,660	113
1919	1,061,695	25,835	18,237	24·3	17·2	2,937	114
1920	1,068,346	32,626	16,765	31·5	15·7	3,477	107
1921	1,075,000	29,712	15,625	27·6	14·5	3,138	106
1922	1,074,607	28,298	17,850	26·3	16·6	3,401	120
1923	1,074,215	26,710	14,875	24·9	13·8	2,388	89
1924	1,073,822	25,330	16,868	23·6	15·7	3,005	119
1925	1,073,429	25,416	15,336	23·7	14·3	2,591	102
1926	1,090,380*	24,541	15,731	22·7	14·6	2,548	104
1927	1,089,988	23,578	15,439	21·6	14·2	2,527	107
1928	1,089,595	23,649	15,701	21·7	14·4	2,525	107
1929	1,089,202	22,799	17,760	20·9	16·3	2,438	107
1930	1,088,810	23,322	15,455	21·4	14·2	2,355	101
1931	1,088,461	22,926	15,505	21·1	14·2	2,397	105
1932	1,088,215†	22,732	16,071	20·9	14·8	2,542	112
1933	1,087,969	21,361	14,747	19·6	13·6	2,061	96
1934	1,087,723	21,822	15,234	20·1	14·0	2,140	98
1935	1,087,476	22,102	15,537	20·3	14·3	2,169	98
1936	1,087,230	22,273	16,406	20·5	15·1	2,429	109
1937	1,086,984	22,176	16,379	20·4	15·1	2,313	104
1938	1,092,968	21,979	15,016	20·1	13·7	1,919	87
1939	1,092,722	21,682	15,010	19·8	13·7	1,737	80
1940	1,092,476	20,965	17,603	19·2	16·1	1,983	95
1941	1,092,229	20,365	16,301	18·6	14·9	2,267	111
1942	1,091,983	20,615	14,679	18·9	13·4	1,863	90
1943	1,091,737	22,363	14,824	20·5	13·6	1,825	82
1944	1,091,491	22,203	14,603	20·3	13·4	2,108	95
1945	1,091,245	20,294	13,941	18·6	12·8	1,379	68
1946	1,090,998	23,560	14,502	21·6	13·3	1,588	67
1947	1,090,752	25,829	15,266	23·7	14·0	1,989	77
1948	1,070,506	22,292	13,620	20·4	12·5	1,241	56
1949	1,090,260	20,923	14,203	19·2	13·0	1,033	49
1950	1,090,013	20,031	14,090	18·4	12·9	879	44
1951	1,089,767	20,091	14,312	18·4	13·1	922	46

\* Extended City.

† Births and Deaths from 1913 are corrected for transfers.

† Intercensal populations and rates in the years 1932 to 1950 inclusive have been revised.



## APPENDIX B.

REPORT ON THE WORK OF THE  
GLASGOW INFECTIOUS DISEASE  
HOSPITALS

1951.



## APPENDIX B.

REPORT ON THE WORK OF THE GLASGOW  
INFECTIOUS DISEASE HOSPITALS, 1951.

With the inception of the National Health Service in 1948 and the transfer of the hospitals to a new authority, the Regional Hospital Board, the reports on the work of the Infectious Disease Hospitals, which had previously been incorporated in the Annual Reports of the Medical Officer of Health, were discontinued. In 1950, however, a statistical appendix showing the work done at the four hospitals was again included and this has been repeated this year. In addition, and by the courtesy of the Regional Hospital Board, the following extract has been made of the report submitted to them by Dr. Thomas Anderson.

“ During the year 1951 a total of 10,138 cases were dealt with at the four I.D. hospitals, Belvidere, Knightswood, Ruchill and Shieldhall, as follows :—

				Infectious Disease	Tuberculosis
Belvidere	...	...	...	4,307	62
Knightswood	...	...	...	1,059	110
Ruchill	...	...	...	4,004	547
Shieldhall	...	...	...	768	16
				<hr/> 10,138 <hr/>	<hr/> 735 <hr/>

Tuberculosis figures are included for completeness as one of the important aspects of the changes in the fever hospitals has been the increasing amount of accommodation used for cases of this disease.

Table I of the Appendix shows that although notifiable diseases still constitute the greater proportion of the conditions dealt with, no less than 2,978 patients (30 per cent. of admissions) are included under the miscellaneous group “others.” This emphasises the changing character of the hospitals which now serve not so much as isolation units for the removal from the community of all infectious diseases (now recognised as an impossible task) as centres where specialised treatment is available for those infections of a severity requiring it.

The age distribution of the patients is shown as follows :—

		Aged 0-5 Years	Aged — 15 Years	Aged 15+ Years	All Ages
<i>All Causes—</i>					
Dismissals ... ..		5,030 (50)	2,156 (22)	2,952 (28)	10,138 (100)
Deaths ... ..		172 (38)	17 (4)	265 (58)	454 (100)
Fatality Rate per cent.		3·4%	0·8%	9·0%	4·4%
<i>Pneumonia—</i>					
Cases ... ..		667 (33)	285 (14)	1,099 (53)	2,051 (100)
Deaths ... ..		43 (28)	2 (1)	110 (71)	155 (100)
Fatality Rate per cent.		6·5%	0·7%	10·0%	7·6%

(Figures in brackets are percentages of the line total).

Such figures serve to emphasise that infectious diseases are not—as is so often assumed—a paediatric problem, but are encountered at all ages.

#### STREPTOCOCCAL INFECTIONS.

In this group, which includes scarlet fever, erysipelas and puerperal infections, the most striking feature is the virtual disappearance of puerperal infections, of which only three cases were treated in the fever hospitals. This is largely due, of course, to the effective control of the earliest manifestations of such conditions by modern methods of chemotherapy with the result that severe infections do not arise and therefore do not require hospital treatment. This group of infections was treated for many years at Belvidere Hospital and it is only a few years since the largest section of the report for that hospital was usually concerned with this disease. Erysipelas too has ceased to be a serious concern. This infection is one which can be adequately treated at home in the great majority of cases and admission to hospital is only required if the infection is particularly severe or when the home conditions are unsatisfactory. The number of cases of *scarlet fever* which are still being admitted to hospital remain disappointingly high. The endemic form of the disease is so mild that it now ranks as one of the least important of the infectious diseases. Further, it is now well established that streptococcal tonsillitis, which, of course, is not considered for hospital admission at all, is just as infectious as scarlet fever. The only grounds for admission, therefore, are first, unusual severity, and second unsuitable housing conditions. Some patients are still admitted from homes which should be suitable for home nursing. Early dismissal from hospital is now established practice in fever hospitals, particularly in regard to scarlet fever. The reasons for this are not only the mildness of the disease and the rapidity with

which many of its complications are cured by modern treatment, but also, in consideration of modern knowledge, that many of the complications are due to cross infection and may therefore be reduced in incidence by early dismissal. Patients who appear to be fully recovered and free from potentially infective discharges or skin lesions are now dismissed on the fourteenth day of illness—which is normally about ten days after their admission.

#### DIPHTHERIA.

As a result of the campaign for active immunisation of young children, this infection is now comparatively unusual. Indeed it is possible to say that a sufficient number of (*typical*) cases for demonstration to medical students is rarely obtained. A total of 414 cases were admitted under this notification and diagnosis confirmed in 110. The incidence and distribution of the various types of diphtheria bacilli has varied since 1937 when the "intermediate" type was predominant. During 1951 the predominant type isolated was "gravis" strain.

Although in comparison with the past an experience of 110 cases of diphtheria may seem a small number, it is disquieting in view of the fact that the disease is almost entirely preventable. It should be noted that the severe and moderately severe cases were practically all unimmunised. Further intensification of the immunisation campaign is required if Glasgow is to boast of no cases and no deaths from diphtheria.

In place of the laryngeal form of diphtheria which is now infrequently seen there is now a very severe inflammation possibly primarily of virus origin which may involve the whole respiratory tract.

#### TUBERCULAR MENINGITIS.

This form of tuberculosis is usually notified in the first instance as "meningitis" so that a large number of cases have always been admitted to the wards reserved for such cases. In contrast to the acute forms of coccal meningitis which recover rapidly and may be dismissed in three to four weeks, tuberculous meningitis demands a prolonged period of treatment and a lengthy stay—often over one year in hospital. This fact has raised serious accommodation problems. Thus where in 1939, in one hospital, one ward was adequate for meningitis there are now three fully occupied and on some occasions it has been necessary to

find additional accommodation. All female cases and children under 5 years are admitted to Ruchill and all male cases over 5 years admitted to Belvidere. Treatment of tuberculous meningitis is a long term one and relapses with unfavourable outcome not unknown. The marked improvement in recovery rates in 1950 and 1951 can probably be attributed to two factors—the prolongation of the course of streptomycin from three to six months and the increasing experience of medical and nursing staff. At the present time it would appear that in an adequately treated series of cases a survival rate of between 60 and 70 per cent. may be expected in the 4-16 years age group two years after commencement of treatment.

#### WHOOPING COUGH.

During the year the total number of cases observed was rather higher than usual for there were 550 in all. There were 24 deaths—a mortality rate of 4.4 per cent. In Ruchill a special investigation under the auspices of the Medical Research Council was made into the efficacy of the recently introduced antibiotics, chloramphenicol and aureomycin. This was carefully planned to eliminate the great variability of the infection from patient to patient. The result of the investigation showed that the new drugs make a valuable contribution in lessening the severity of the disease. Respiratory tract involvement still comprises the bulk of the complications. These complications consisted of pneumonia and atelectasis and were responsible for an average duration of stay in hospital of seven weeks for all cases. In over 10 per cent. of the Ruchill cases the lungs were not radiologically clear on discharge from hospital, and necessitated a continued follow-up at the hospital chest clinics. The fatality rate in whooping cough has formerly been closely related to the incidence and type of respiratory infections. It would appear, however, that these complications are now being controlled by chemotherapy. As a result involvement of the central nervous system has been brought more sharply into focus as a cause of death.

#### BOWEL INFECTIONS.

The enteric group of cases now represents a small proportion of the admissions; during the year 36 cases were confirmed, all but three of which were due to *S. paratyphi B*. The patients presented no unusual feature, the infections were mild and there were no deaths.



*Bacillary dysentery*—mostly Sonne in type—accounted for 927 cases. A further 169 were admitted with this notification but diagnosis was not confirmed. There were three deaths. This group seldom constitutes a severe therapeutic problem for the majority are of a mild character. The main difficulty lies in securing bacteriological freedom from infection before dismissal from hospital, particularly important when the patient is returning to another institution, e.g., a residential nursery. Consequently the average duration of stay in hospital (18 days) is much longer than the severity of the condition demands.

*Cases of bacterial food poisoning or salmonellosis* represent a serious problem; first because of the severe dehydration which may demand urgent intensive intravenous fluid replacement therapy on admission, second because of the variety of different organisms involved which make ward management difficult, and finally because none of the forms of chemotherapy has made any contribution to bacteriological cure. Many patients are encountered who continue to excrete the organisms for a long period despite intensive courses of combinations of different agents. Many healthy individuals appear to be symptomless excretors of these organisms and it seems likely that the carrier rate in the community as a whole is higher than has been suspected.

*Gastro-Enteritis of infants.*—This disease was endemic during the year; there was no epidemic prevalence and, on the whole, the type was a mild one. This disease still presents many puzzling features. With the financial assistance of the Advisory Committee for Medical Research in Scotland a special investigation unit has been set up in Knightswood Hospital—an open ward containing 16 cots—but since September, 1951, two similar wards at Ruchill Hospital have been included. Details of the work carried out during the year at Knightswood are given in full in the report to the Regional Board, but two conclusions so far arrived at are that the amount of cross infection (in such cases) is considerable and that the methods of preventing cross infection which are effective against respiratory organisms are much less effective in the control of enteral infection. The efficacy of various antibiotics in the treatment of gastro-enteritis has been studied, but the findings which have so far emerged require further investigation. There is no doubt that the most important factor in treatment is the rehydration of the infant and chemotherapy must, at present, occupy a secondary role.



## PNEUMONIA.

The policy adopted 25 years ago of admitting notified cases of pneumonia to the fever hospitals has been responsible for completely altering the character of these hospitals. The so-called pneumonia wards received a wide variety of acute medical conditions wrongly diagnosed, especially the adult wards, which consequently give valuable training to the young doctor and to the nursing staff. That pneumonia constitutes one of the main problems of the Glasgow Infectious Diseases Hospitals is shown by the fact that 3,521 patients were treated during the year, 2,051 of which were confirmed cases of pneumonia. The fatality rate was 4·4 per cent. and all but 21 of the deaths occurred under the age of one year or over the age of 45 years. There were only 10 deaths in the age group 5 to 45 years, illustrating the fallacy which arises in the statement of a gross fatality rate in pneumonia. Since most of the deaths now occur in the very young or in the elderly the rate will depend upon the proportion of patients in these age groups. It must be remembered too that in the elderly the pneumonia often supervenes on a chronic disease or degeneration and is not the primary cause of death.

The beginning of the year was marked by a severe epidemic of influenza due to the A prime strain of virus. Influenza is always associated with an increase in pneumonia notifications and deaths and in this respect the epidemic was of a severe form. For the first time in the city it was possible to be precise regarding the nature of the influenza epidemic because of the examinations made at the University Department of Infectious Diseases. These showed that the epidemic had begun on or about 21st December, 1950, reached its maximum during the month of January, and tailed off rapidly thereafter. It was estimated that during the period 25th December to 4th February, 1951, two-thirds of the admissions to the pneumonia wards showed evidence of virus infection. Since accurate identification of the type of virus infection will now be available, it will be interesting to observe and compare the behaviour of future epidemics.

## OTHER INFECTIONS.

Among the infections which proved of only minor importance during the year may be mentioned *poliomyelitis* of which there were 64 cases, the majority of which occurred in the age group 2 to 15 years. There were three deaths. *Measles* accounted for 426 admissions, the great majority in the age group 2 to 5 years. Most of the cases were mild in

character and the fatality rate was 1·6 per cent. The increased use of the antibiotics and particularly of penicillin has altered the course of this infection in recent years so that severe or prolonged respiratory illness is now unusual. Gamma globulin and any convalescent measles serum obtained has been used principally in institutions housing susceptible contacts, but has also been issued on request to general practitioners for the passive immunisation of children under 2 years, particularly where some pre-existing disease would make measles an increased hazard.

An increasing number of cases are being admitted, originally notified as measles, rubella, glandular fever, etc., in which the final diagnosis made is *sensitisation*. Often the nature of the sensitising agent cannot be discovered although in some cases apparently simple substances, such as aspirin and barbiturates are responsible. There is no doubt this condition has increased considerably in recent years and is probably associated with the great increase in the use of chemical substances.

#### CONCLUSION.

It is sometimes carelessly stated that infectious diseases are a diminishing problem and that fever hospitals are therefore an anachronism. The fact that the Glasgow hospitals deal with a total of over 10,000 in-patients should suggest that such a statement is premature. Two points must be borne in mind here. First, the acute infections have diminished in importance largely because of the excellence of modern treatment. There is therefore every reason for ensuring that centres are continued where active investigations of new methods can be carried out. The argument for admission to the fever hospital is no longer simply one of endeavouring to isolate the patient from the community, but the securing of the best form of therapy for the severe forms of infection. Such a policy will require the concentration of these cases in a few relatively large units and the closing down of the small "local" fever hospital. In the second place we should bear in mind the history of infectious diseases: many times in the past one or other infection has more or less disappeared, to recur after a time often with renewed virulence. The unique feature of the present experience is that practically all bacterial infections are presenting mild forms at the same time, but it should not be assumed that this state of affairs will continue indefinitely. The very treatments used at present with such good result on some occasions produce

resistant strains of bacteria. Further, though the bacterial diseases lessen in severity, the virus diseases remain as a continuing challenge. Influenza and poliomyelitis, to mention only two, still present many problems for solution and only by the continuation of active units dealing with such cases in considerable numbers may our knowledge be extended.

A recent development in this field is the inception of a department for the investigation of virus diseases. A lectureship in the Glasgow University Department of Bacteriology has been created to this end. In the meantime such work will be concentrated in the Department of Infectious Diseases at Ruchill. This greatly extends the scope of epidemiological investigations and its importance in studying the behaviour of influenza epidemics has already been mentioned. From the practical public health point of view not the least valuable side of its work will be in the precise diagnosis of smallpox. All suspicious cases are now examined virologically and during the year nine such examinations were made."

## APPENDIX B.—TABLE I.

FEVER HOSPITALS—STATEMENT OF CASES TREATED ACCORDING TO SEX, ETC., BASED ON DISMISSALS AND DEATHS  
FOR YEAR 1951.

	Admitted		Dismissed		Died		Mortality per cent.	Average Residence		Altered Diagnosis	Ruchill		Belvidere		Knightswood		Shieldhall		Total Days' Residence	
	Males	Females	Males	Females	Males	Females		Dis- missals	Deaths		Dis- missals	Deaths	Dis- missals	Deaths	Dis- missals	Deaths	Dis- missals	Deaths	Dis- missals	Deaths
Enteric Fever	1	1	2	1	—	—	—	60	—	22	1	—	1	—	—	—	—	—	181	—
Paratyphoid Fever	21	31	18	15	—	—	—	52	—	6	12	—	17	—	—	—	—	—	1,718	—
Continued and Undefined Fever	4	2	2	—	—	—	—	10	—	86	1	—	1	—	—	—	—	—	20	—
Puerperal Fever	—	1	—	1	—	—	—	39	—	—	—	—	—	—	—	—	—	—	39	—
Puerperal Pyrexia	—	2	—	2	—	—	—	7	—	—	—	—	—	—	—	—	—	—	14	—
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	850	881	811	833	—	—	0.1	18	17	158	536	1	822	—	68	—	218	—	29,188	17
Diphtheria and Membranous Croup	65	66	55	55	—	—	1.8	41	1	304	21	1	86	1	1	—	—	—	4,502	2
Erysipelas	45	62	41	64	—	—	—	16	—	49	102	—	—	—	—	—	—	—	1,695	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-spinal Fever	64	65	49	56	5	5	8.7	26	10	425	89	9	5	1	9	—	—	—	2,737	103
Trachoma	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Encephalitis Lethargica	—	—	1	—	—	—	—	629	—	2	1	—	—	—	—	—	—	—	629	—
Acute Poliomyelitis	—	—	—	—	—	—	—	25	—	1	1	—	—	—	—	—	—	—	25	—
Acute Poliomyelitis	40	21	39	22	—	—	4.7	27	101	49	29	—	22	1	9	—	1	—	1,665	302
Acute Primary Pneumonia	1,219	769	1,176	717	80	74	7.5	25	9	1,448	604	47	663	57	308	30	318	20	47,096	1,413
Acute Influenzal Pneumonia	2	2	1	2	1	—	33.3	30	1	22	—	—	—	—	3	—	—	—	91	1
Malara	10	—	9	—	—	—	—	15	—	—	6	—	—	—	3	—	—	—	134	—
Dysentery	483	417	495	429	—	—	0.3	18	—	169	360	1	552	2	12	—	—	—	16,600	3
Pulmonary Tuberculosis	136	101	124	112	16	5	8.2	71	39	—	97	3	114	14	22	—	3	2	17,123	810
Other Forms of Tuberculosis	52	59	43	46	27	23	36.0	215	94	—	36	26	36	13	17	9	—	—	19,097	4,726
Measles	217	207	217	209	4	3	1.6	16	2	34	162	2	161	3	56	1	47	1	6,739	15
German Measles	13	20	14	20	—	—	—	10	—	2	11	—	12	—	4	—	—	—	339	—
Whooping Cough	205	243	235	251	9	15	4.4	38	16	71	230	10	186	4	48	5	62	5	20,242	397
Chickenpox	140	99	147	106	—	—	—	21	—	12	14	—	233	—	6	—	5	—	5,406	—
Mumps	39	28	39	29	—	—	—	16	—	9	33	—	25	—	5	—	—	—	1,075	—
Veneral Diseases	58	72	62	72	1	—	0.7	43	1	—	75	—	59	1	—	—	—	—	5,743	—
Influenza	27	21	27	21	—	—	2.0	10	—	—	21	—	21	—	5	—	1	—	506	—
Leprosy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Anthrax	2	—	2	—	—	—	—	37	—	2	—	—	—	—	—	—	—	—	93	—
Infective Jaundice	—	—	—	—	—	—	—	32	—	—	—	—	—	—	—	—	—	—	32	—
Smallpox Contacts	—	—	—	—	—	—	—	28	—	—	2	—	—	—	—	—	—	—	28	—
Babies with Mothers	—	—	—	—	—	—	—	41	—	—	11	—	18	—	6	—	1	—	1,473	—
Mothers with Babies	—	—	—	—	—	—	—	11	—	—	78	—	37	—	19	—	26	—	1,683	—
Unclassified (Staff)	85	62	81	67	—	—	—	90	18	—	1,981	86	1,088	58	373	31	41	1	56,421	3,205
No Apparent Disease	1,663	1,315	1,510	1,242	110	66	5.9	—	—	—	—	—	—	—	—	—	—	—	—	—
Others	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5,444	4,578	5,235	4,419	256	199	1.5	95	54	9,880	1,817	187	4,151	156	980	79	736	42	94,313	10,006
Phthisis	363	412	297	458	57	34	10.9	191	147	—	193	34	60	2	86	34	16	—	1,514	10,065

APPENDIX B.—TABLE II.  
 FEVER HOSPITALS. DEATHS FROM CERTAIN CAUSES, ACCORDING TO SEX AND AGE, FOR THE YEAR 1951.

Diseases	MALES												FEMALES														
	-1	-2	-5	-10	-15	-20	-25	-35	-45	-55	-65	65+	Total	-1	-2	-5	-10	-15	-20	-25	-35	-45	-55	-65	65+	Total	
Cerebro-spinal Fever	—	3	1	1	—	—	—	—	—	—	—	—	5	1	1	2	—	—	—	—	—	—	—	—	1	—	5
Acute Poli- encephalitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Acute Poliomyelitis	—	—	—	—	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	1	—	—	—	—	—	2	
Acute Primary Pneumonia	14	5	2	—	—	—	—	—	5	9	18	27	80	19	—	3	1	1	—	—	1	2	5	14	28	74	
Influenzal Pneumonia	—	—	—	—	—	—	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
Dysentery	—	1	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	1	1	
Pulmonary Tuberculosis	—	—	—	—	1	1	2	1	2	4	4	1	16	—	1	1	—	—	1	—	1	—	—	—	—	5	
Other Forms of Tuber- culosis	1	10	5	4	—	2	3	—	—	—	2	—	27	3	3	6	4	1	2	1	2	1	—	—	—	23	
Measles	1	1	2	—	—	—	—	—	—	—	—	—	4	1	1	1	—	—	—	—	—	—	—	—	—	3	
Whooping Cough	8	—	1	—	—	—	—	—	—	—	—	—	9	9	4	2	—	—	—	—	—	—	—	—	—	15	
Chickenpox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Influenza	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	
Venereal Diseases	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
Others	28	6	—	1	1	1	—	3	12	15	24	19	110	19	1	1	1	1	2	1	—	4	8	10	18	66	
Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1	
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	2	
Total	52	26	11	6	2	4	6	5	19	28	48	49	256	53	11	19	6	3	5	3	5	8	13	25	47	198	
Phthisis	—	—	—	—	—	5	2	13	13	10	9	5	57	—	—	—	—	—	3	5	5	5	4	—	1	23	



## APPENDIX B.—TABLE III.

FEVER HOSPITALS. DISMISSALS AND DEATHS ACCORDING TO SEX AND AGE, FOR THE YEAR 1951.

Diseases	MALES													FEMALES												
	-1	-2	-5	-10	-15	-20	-25	-35	-45	-55	-65	65+	Total	-1	-2	-5	-10	-15	-20	-25	-35	-45	-55	-65	65+	Total
Enteric Fever	1	1	3	2	4	1	—	1	2	—	—	—	2	1	1	—	2	1	2	—	5	1	1	—	—	1
Paratyphoid Fever	—	—	—	—	—	—	—	—	—	—	—	—	18	—	—	—	—	—	—	—	—	—	—	—	—	15
Continued and Undefined Fever	—	—	—	1	—	—	—	—	1	—	—	—	2	—	—	—	—	—	—	—	1	—	—	—	—	1
Puerperal Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	2
Puerperal Pyrexia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Smallpox	4	40	326	306	97	26	4	4	3	—	—	1	811	3	25	285	347	130	27	7	6	1	3	—	—	834
Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria and Membranous Croup	1	3	13	24	11	1	2	6	8	4	9	6	55	—	1	22	23	5	2	1	3	—	19	15	10	57
Erysipelas	—	1	—	1	3	—	3	—	—	—	—	—	41	—	—	1	—	1	2	1	6	9	—	—	—	64
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-spinal Fever	18	10	14	7	1	1	—	1	1	1	—	—	54	26	6	17	3	2	2	2	2	—	—	1	—	61
Trachoma	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Encephalitis Lethargica	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Acute Polio	—	—	—	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Encephalitis	—	—	—	9	7	2	1	6	—	—	—	—	40	1	3	6	6	—	3	2	2	1	—	—	—	24
Acute Poliomyelitis	2	3	10	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Acute Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia	137	98	161	94	33	43	41	89	120	171	140	129	11,256	113	58	100	53	32	30	28	59	63	79	76	100	791
Acute Influenzal	—	—	—	—	—	—	1	—	—	—	—	1	2	—	—	—	—	—	—	—	—	—	—	1	—	2
Pneumonia	—	—	—	1	—	—	4	2	2	—	—	—	9	—	—	—	—	—	—	—	—	—	—	—	—	—
Malaria	57	104	200	81	17	3	3	9	6	8	2	7	497	38	76	156	74	12	9	9	18	14	7	8	9	430
Dysentery	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis	5	4	10	29	14	24	7	10	9	13	10	5	140	1	4	20	16	11	30	9	12	5	7	2	—	117
Other Forms of Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles	2	12	15	14	8	6	4	4	1	1	3	—	70	3	4	14	15	6	14	7	5	1	—	—	—	69
German Measles	27	56	107	28	2	2	1	—	—	—	—	—	221	18	45	96	25	2	9	9	4	2	—	—	—	212
Whooping Cough	1	—	3	3	2	3	2	—	—	—	—	—	14	1	1	3	3	2	6	2	2	—	—	—	—	20
Chickenpox	87	51	83	23	2	2	3	1	1	2	—	—	244	98	57	118	31	1	3	1	1	—	—	—	—	306
Mumps	11	15	67	43	2	2	—	4	3	—	—	—	147	13	11	41	28	7	7	4	2	1	1	—	106	
Veneral Diseases	—	2	12	12	3	1	2	4	3	12	2	9	39	—	2	3	8	2	6	4	2	1	1	4	1	72
Influenza	3	2	2	2	1	1	2	7	3	2	4	1	27	2	—	1	1	1	19	16	17	9	3	5	1	22
Leprosy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Anthrax	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Infective Jaundice	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Contacts	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Babies with Mothers	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Mothers with Babies	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
No Apparent Disease	24	14	18	10	3	3	4	3	2	—	1	1	83	40	8	10	11	5	14	14	4	3	1	1	1	36
Other	565	157	229	148	66	39	27	69	85	88	110	67	1,050	498	108	165	110	74	63	37	66	68	65	72	52	67
Total	946	573	1,274	839	272	160	117	218	260	302	289	998	5,191	768	410	1,050	357	388	351	155	233	185	194	184	173	4,647
Further	1	7	9	9	9	37	38	67	55	58	24	10	334	9	2	13	39	46	69	95	49	4	9	4	9	381